Ian Shanahan (1997)

– In Memoriam James Owen Shanahan (25/9/1922 – 8/7/1997)

To Winsome Evans;
For The Renaissance Players' 30th anniversary:

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[p]s(t)ellor/mnême

a mandalikon

for

soprano recorder

and

a broken consort of early-music instruments

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PROGRAMME ANNOTATION

[p]s(t)ellor/mnême

a mandalikon
for soprano recorder and a broken consort of early-music instruments

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Although not always grammatically accurate, the following linguistic homologies apply:

mnême [Greek] ≈ memory (whence 'mnemonic');
psellor [Greek] ≈ stuttering, recursion;
stellor [Latin] ≈ of stars (whence 'stellar').

So ... **[p]s(t)ellor/mnême** ≈ 'stuttering memory; memory of stars', this being my second composition thus far to embrace total non-teleology. Like the sacred Buddhist *mandalas* or the *ikons* of Orthodox Christianity, it is a static object which exists solely to be contemplated – a 'stuttering memory' that recapitulates data inexorably: here, the same gesture is repeatedly 're-perspectivized', somewhat as one might examine from various angles the facets of a jewel. (Such works of mine I now refer to as "mandalikons".)

How is **[p]s(t)ellor/mnême** a 'memory of stars'? Firstly, it occurred to me that our basic unit of time (the second) is quite arbitrary, in that it does not stem from any easily discernible natural phenomena ... whereas some older units of length-measurement are geodetic, being directly related to the dimensions of the Earth itself. I was then astonished to learn that the Great Pyramid at Giza is a scaled-down representation of Earth's northern hemisphere: the ratio of the Pyramid's perimeter to its original height is very close to 2π; this perimeter, when multiplied by 43,200, matches the Earth's equatorial circumference to within a 1% error. The number 43,200 in turn derives, apparently, from Earth's cycle of precession (periodicity: 25,776 years).* Furthermore, the Giza Pyramids' relative sizes and locations parallel the magnitudes and alignment of those stars which comprise the belt of the constellation Orion! Hence I asked myself: Could I not create something analogous – something just as intellectually exquisite – with the chronomorphology of this new composition? To summarize, **[p]s(t)ellor/mnême** encompasses a notional duration of 332.28", partitioned internally according to certain well-known mathematical constants; these same constants are employed in a rather arcane way to yield 332.28" through a reiterative division of Earth's 25,776-year precessional cycle. **[p]s(t)ellor/mnême** is, therefore, literally the Precession of the Equinoxes in microcosm – a 'memory of stars', insofar as cycles of precession are computed through long-term astronomical observation.

Since I am one of several composers who has been an occasional member of The Renaissance Players, Winsome Evans commissioned **[p]s(t)ellor/mnême** from me as part of the group's thirtieth anniversary celebrations. But perhaps there is also a tenuous connection (because of my 'stellar' title and quadrivial preoccupations) to The Renaissance Players' Spanish Mediæval repertoire – Santiago de Compostela? In any case, I dedicate this festschrift piece to Winsome, from whom I shall always continue to learn, with the greatest respect and thanks.

It is equally appropriate, given the title's fabricated meaning, that **[p]s(t)ellor/mnême** be written in memory of my father, Jim Shanahan (25/9/1922 – 8/7/1997): in life, he certainly burned bright as a star. (Who knows? The Old Man might have even liked this piece!)

* see Graham Hancock: **Fingerprints of the Gods** (Mandarin Paperbacks, London, 1995), pp.459–461.

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[p]s(t)ellor/mnême *was premièred – and broadcast live across Australia on ABC Classic FM radio – by Ian Shanahan (soprano recorder) and The Renaissance Players (Nick Wales, Eleanor Lewis, Cathy Tabrett, Jenny Ericksson, Kim Poole, Winsome Evans, Andrew Lambkin, Sally Treloyn, Barbara Stackpool, Tim Chung, and Simon Lobelson), during the Eighth Sydney Spring International Festival of New Music, Eugene Goossens Hall, ABC Centre, Harris Street, Ultimo, Sydney, on 19 September 1997.*

The composer received the inaugural ***Sydney Spring Award for Composition****, for the most outstanding original Australian composition {****[p]s(t)ellor/mnême****} performed during the Eighth Sydney Spring International Festival of New Music (1997). (****[p]s(t)ellor/mnême*** *was then also nominated for a* ***1998 Sounds Australian National Award****, for the Best Composition by an Australian Composer performed during 1997.)*

PERFORMANCE NOTES

1. GENERAL REMARKS

I wish to thank *Winsome Evans* and each member of *The Renaissance Players* – they are all listed after my Programme Annotation – for their technical advice regarding early-music instruments ... not to mention their constant support during the composition and rehearsal of **[p]s(t)ellor/mnême**. I do appreciate their affable generosity. Andrew Stiller's wonderful **Handbook of Instrumentation** (University of California Press, Berkeley, California, U.S.A., 1985) also proved invaluable.

INSTRUMENTATIONAL REQUIREMENTS

- ***Soprano Recorder*** ('soloist')
- ***Finger Cymbals*** (1 pair)
- ***Small Clash Cymbals*** (1 pair, hand-held)
- ***16 Handbells*** (2 players)
  {the bells are suspended in a framework and struck by pairs of mallets}
- ***1 Mandola***
- ***1 Celtic Harp***
- ***1 Alto Rebec***
- ***1 Waterphone*** (played by the rebecist only during the final section of the work)
- ***3 Bass Viola da Gambas***

Note: descriptions of all of these instruments (as well as acceptable substitutions) shall be given later; I have also appended to these Performance Notes a table that shows their specific *tunings or scordature*, and a diagram depicting the instruments' *physical layout*.

The tuning of all (well-pitched) instruments must be centred upon either *A440 Hz* or *A415 Hz* – unless semitonal string-retunings are practicable.

TEMPORAL ORGANIZATION, CONSORT COORDINATION, RESONANCE AND NOTE-LENGTH

Aside from the soloist's part, the score of **[p]s(t)ellor/mnême** is notated entirely in *time-space notation*, with each 'ictus' (short, thick vertical stroke) corresponding to *one second* of elapsed time, according to the formula *40 millimetres ≈ 1 second = metronome 60.** Therefore, musical events in this piece should be deployed chronometrically in direct proportion to their relative horizontal placement upon the score-page: an electronic metronome flashing once per second might prove to be an effective practice tool in this respect. Yet I strongly discourage any sense of metricated rigidity! (Indeed, temporal *asymmetry* ought to be strived for.)

Nevertheless, in order to facilitate ensemble coordination, the broken consort in **[p]s(t)ellor/mnême** definitely requires a *timekeeper* – somebody, seated behind the soloist, who simply 'beats' each ictus and paces inter-sectional pauses. (The timekeeper is *not* a conductor in any conventional sense: their rôle is by no means interpretative.) If there is a shortage of personnel, a not entirely desirable solution would be to have the finger-cymbalist sit behind the soloist to fulfil the rôle of timekeeper as well!

At the microformal level, 'rhythmic' notation for the string instruments in **[p]s(t)ellor/mnême** has been radically economized, consisting merely of painstakingly deployed noteheads (all but a few of them without any 'extenders'): whenever plucked, strings must be allowed to vibrate to extinction – wherever possible – and are *never* to be

damped; whenever bowed, notes are to be sustained either fully (i.e. right up to the next sonority) or as much as is practicable given local technical exigencies – with inevitable caesurae being as brief as possible (lasting at most 1 second under any circumstance). When there is no 'next sonority' within my framework of temporal proportionality – as is the case for the last notes of each section – the end-point of an *extender* will indicate the termination-moment of a (previously sustained) note.

* The three viola da gamba parts in section 5 and section 6 are all, I must confess, *extremely difficult* to execute in time when the formula 40 millimetres ≈ 1 second is operative. So – although it does undermine my compositional intentions (being contrary to my chronomorphological conception of this piece) – *if it proves absolutely necessary*, the 'time-space tempo' may be slowed down, to a minimum of 40 millimetres ≈ 2 seconds *throughout the whole work*. Sectional proportionalities must be preserved at all costs!

THE OPTIONAL PAUSES BETWEEN SECTIONS

Optional pauses between certain sections of **[p]s(t)ellor/mnême** – denoted by *peaked fermatas* (𝄐) – have been proposed, to assist in the coordination of sectional beginnings. Since they all lie *between* sections, the consort must not 'play through' them; it will also prove necessary to agree in rehearsal upon which of these pauses shall occur during live performance. Precise durational details of such optional pauses are left to the discretion of the timekeeper – although they all ought to be varied in length, lasting somewhere between 0.5 and 3 seconds.

DYNAMIC INDICATIONS

Apart from the traditional dynamic markings (*ppp*, *pp*, *p*, *mp*, *mf*, *f*, *ff*, *fff*) – all of which I have envisaged as representing (absolute) perceived loudnesses rather than (relative) performative actions – the following symbols are employed in **[p]s(t)ellor/mnême**:

○ represents the final vanishing into *inaudibility*: allow the sound to attenuate to *silence*;

f poss. is an abbreviation for performers to play 'as loudly as possible'.

PITCH DESIGNATION AND MICROTONES

In any references to pitch in **[p]s(t)ellor/mnême**:

"Middle C" shall be designated as C♮3, the C♮ one octave higher as C♮4, etc. (i.e. assuming that A♮3 = 440 Hz, then C♮3 ≈ 261.6255653 Hz).

𝄲 and 𝄳 denote a *quartertone above* ♮, and a *quartertone below* ♮, respectively. (These quartertones are *well-tempered*, being the generative interval of 24-tone equal temperament.) Smaller degrees of intonational deviation – slight microtonal inflections, non-tempered, of up to an eighthtone – upwards and downwards are indicated by upward-pointing and downward-pointing arrowheads, respectively, upon accidental symbols. Examples: B𝄳5; F𝄲4; A♭3; G♮2 etc.

RANDOMIZED PARAMETERS

Within most of the instrumental parts which comprise **[p]s(t)ellor/mnême**, a number of technical/musical parameters have been bracketed thus: *Rand { }*. Until countermanded by some other randomization directive, all of these bracketed parameters may be

randomly transformed, introduced, or eliminated in performance. As such, they provide an 'embellishmental' stimulus to the consort players and soloist while framing the artistic boundaries within which my music can evolve – thereby according an early-music ensemble the opportunity to stamp their own distinctive personality upon their interpretation of this piece.

Related 'curly bracket notations' involving randomized parameters are:

Optional Rand { } – these bracketed parameters may be optionally randomized;

Rand Only { } – from amongst the previous *Rand { }* directive's bracketed parameters, henceforth randomize only those parameters now bracketed;

End Rand – end *all* randomization of technical/musical parameters: *Rand { }* is concluded.

Whenever *Rand { }* is operative, any instructions notated between orthogonal brackets – [ ] – take mandatory precedence, locally and temporarily overriding the randomization process. For example, a sonority assigned the dynamic indication [*ppp*] during a passage when *Rand {p↔mf}* is functional, *must* be played in *ppp*, irrespective of this particular *Rand { }* directive!

2. THE SOLO SOPRANO RECORDER PART: DETAILS

THE SOPRANO RECORDER PART'S IMPROVISATORY STRUCTURE

The soloist's part comprises eleven 'modules' that correlate to **[p]s(t)ellor/mnême**'s eleven sections. These modules all commence with a single sustained volatile 'fractalous' sonority (the < α > material) – such unstable sound-objects should sometimes last almost a whole breath-length! – which then merges into pitch-material that forms the basis for improvisation (the < β > material). The soprano recorder part, whose sounds enter not less than 15 to 20 seconds *after the conclusion of the first handbell-peal*, on the whole unfurls autonomously relative to the consort music – not being rigidly locked in step with it. Modules 2–10 begin somewhere towards the end of their correlative handbell-peals (or even just beyond them); module 11, however, can start straight after the initial attack of the final handbell-peal, but must stop *as soon as the terminal clash of cymbals is heard*. Within modules 1–10, their < β > pitch-materials are 'repeated' over and over again – being cycled through, orbit-like, until the next section's handbell-sounds signal an immediate halt.* (The eleventh module's < α > pitch-material, on the other hand, is interpreted or 'read straight through' *just once*.) Note that each module's materials *must be presented in full*: residual < β > material, if any, has to be played *during the next section* before the succeeding module's < α > pitch-material can be proceeded to!

* Notwithstanding this rule, an occasional *brief* overlap of the soprano recorder's < β > pitch-cycles with the following section's handbell tintinnabulations is by no means unacceptable! Equally, the soloist may choose once in a while to suspend the orbital process *before* the end of a section has been reached.

Some Interpretative Possibilities

i. Within the < β > pitch-material of each module, subsets of pitches can be looped 'epicyclically': as one encounters a smaller internal subset of adjacent pitches, it too can be looped (cyclically, or even permutatively!).

ii. Another interpretative possibility: within each module, the initial presentation (only) of the < β > pitch-material might just be a relatively straightforward or simple reading-through of the given pitches, with little or no embellishment.

SOPRANO RECORDER FINGERINGS

Research into the fingering-configurations that yield the eleven 'fractalous' < α > sonorities in **[p]s(t)ellor/mnême** was carried out upon an ebony Moeck Rottenburgh soprano recorder. On any other models of soprano recorder however, different (microtonal) pitches will probably be produced; if these pitch-discrepancies are indeed small, then they can be safely ignored. In some circumstances, nonetheless, it might prove beneficial to modify some of the given fingerings accordingly. (If this proves to be impracticable, then just do your best with the provided fingering.)

THE SOPRANO RECORDER'S RANDOMIZED PARAMETERS

< α > Randomize: {alternations between *fluttertonguing* and *tongue-tremolo*; normal articulations (e.g. *staccato*, *portato*, *legato*); "breath trills" (i.e. pitch-oscillations and -fluctuations generated through breath-control, without any finger-movement whatsoever!); air-flow (such that the given pitches are elicited)}

Note: pitches between pairs of bold-faced orthogonal brackets **[ ]** manifest themselves as distinct vibrational modes of a *single fingering*: hence, no finger-movement whatsoever should take place prior to progressing on to the < β > material! However, as a direct outcome of engaging the < α > randomized parameters listed above, compel these orthogonal-bracketed pitches to 'crack' upwards or downwards, flickering chaotically between and through several vibrational modes and multiphonic component tones. The overall impression of these coruscant < α > objects should therefore be one of *volatile instability* – a locally unpredictable 'acoustic fractal', which may be sustained for almost an entire breath-length.

< β > Randomize: {(multi)octave transpositions; the addition of unspecified material; the (s)pacing of events (i.e. their speed and density); the insertion of *SILENCES*; articulations (*sputato* [i.e. a noisy, exaggerated, overblown attack], *fluttertonguing*, *tongue-tremolo*, normal articulations [e.g. *staccato*, *portato*, *legato*], etc.); microtonal pitches; *glissandi*; *vibrati* (of various types); air-flow; multiphonics; the admixture and withdrawal of vocalized sounds; air-noises}

Note: for *tongue-tremolo*, articulate, *as quickly and as evenly as possible*, the (double-tonguing) phonemes '[d]idl(d)idl(d)idl...' – as in "middle" – or the much more common (double-tonguing) pattern '[t]eketeke...' ('[d]egedege...'). The type and intensity of the tongue-tremolo to be employed at each occurrence is left to the discretion of the recorder-player.

3. THE PERCUSSION INSTRUMENTS: DETAILS

Once animated, the sounds of *all* percussion instruments are to be permitted to ring on indefinitely: *under no circumstances* is any damping of resonance *ever* to take place.

FINGER CYMBALS

The *finger cymbals* required for **[p]s(t)ellor/mnême** are 'antique cymbals' or 'hand crotales' – a pair of very thick high-domed finger cymbals up to about 120 mm in diameter, connected by a cord, and tuned at least a semitone apart. Because of their size and weight, they have to be held in opposite hands rather than on two fingers of one hand.

RANDOMIZED PARAMETERS

Randomize: {alternations between clashes of parallel cymbal-plates (i.e. like hi-hat cymbals being held vertically) and where one instead suspends the finger cymbals horizontally and taps them together, edge-to-edge; *ppp↔(m)p* (dynamic levels ranging between *ppp* and *(m)p*)}

SMALL CLASH CYMBALS

The pair of *small clash cymbals* required for **[p]s(t)ellor/mnême** are the traditional hand-held clash cymbals, of thin gauge, between 350 mm and 400 mm in diameter – the sort of clash cymbals employed for 'authentic' performances of early music.

RANDOMIZED PARAMETERS

Randomize: {*strisciato* (i.e. an effect produced by starting with the cymbal-plates in contact with each other and then sliding them apart rapidly to produce a delicate 'zing'); single point of attack along the edge (e.g. one suspends the clash cymbals horizontally and taps them together, edge-to-edge); *ppp↔(m)p* (dynamic levels ranging between *ppp* and *(m)p*)}

16 HANDBELLS

The 16 *handbells* required for **[p]s(t)ellor/mnême** are all suspended in a framework and struck by pairs of mallets; 2 (or more) campanists will be needed, each controlling (up to) 8 bells. (The handbells' pitches have been appended to these Performance Notes.)

These 16 handbells – each with its own internal felt 'clapper' and a leather hand-strap – all came from a somewhat larger series, comprising the pitches:

G♮2, A♮2, B♮2, thence chromatically – from C♮3 to C♮6, inclusive.

There are no truly satisfactory substitutes for handbells – although, as a last resort, the lowest ones (which might be quite difficult to acquire) could be supplanted by appropriately tuned *gongs* or even by large, suitably pitched *Japanese temple bells* (*rin*).

THE 11 HANDBELL-PEALS

The initial attack of each handbell-peal must be precisely synchronized by both campanists, after which their remaining ten attacks ought to be "uncoordinated and irregular – at your own pace". It would also be musically advantageous if the campanists were to *vary the duration of every handbell-peal*: in my score of **[p]s(t)ellor/mnême**, such peal-durations have been signified on purpose somewhat ambiguously by *large oblong fermatas* (𝄐); each handbell-peal's pacing and time-span might even be made to correlate approximately with the length and density of the section it introduces! Beyond the final attack of every handbell-peal, a momentary hiatus of 'suspended time' – through which the handbell-sounds resonate beautifully – shall be permitted to assert itself: notated using *peaked fermatas* (𝄐), these, too, should be temporally variegated; they also fulfil a practical function – to allow the timekeeper to coordinate the consort's time-count thereafter.

HANDBELL MALLETS

The following pictographs illustrate the two basic types of handbell mallets called for throughout **[p]s(t)ellor/mnême**:

denotes a hard felt-wound mallet. {Handbells 1 – playing the eight highest bells}

denotes a felt-wound mallet of medium hardness. {Handbells 2 – playing the eight lowest bells}

Such pictographs are vague guidelines only! Both campanists are wholeheartedly encouraged to experiment by changing mallet-types from one peal to another – for the sake of timbral and dynamic variety. The handbells' sounds, though, should *never*, under any circumstances, be too clangorous: their pitches must always be clearly discernible, possessing a rich and yet at times fairly mellow timbre (wherein the handbells' lower partials are suppressed or attenuated as little as possible) ... even when the highest bells have been hit hard!

WATERPHONE

The *waterphone* – played by the rebecist only during the final section of **[p]s(t)ellor/mnême** – is a very rare and unusual instrument that hails from California: invented during the 1970s by Richard Waters, it is a strange-looking yet absolutely exquisite sound-source, having a bulbous metal body, a small elongated cylindrical funnel through which water is poured, and a series of metal prongs of different lengths welded around the outer edge of its base. The waterphone is held by the end of its funnel, and may be continuously tilted through various angles to induce the water to slurp around inside. Whenever its prongs are bowed, flicked, scraped, stroked, plucked or otherwise activated, an eerie, ethereal, kaleidoscopic sound (somewhat reminiscent of whale-song?) is forthcoming. Because a waterphone is so visually conspicuous, for the sake of surprise during a live performance it should be well hidden from the audience's gaze by being placed within a sufficiently large box – only to be brought out at the very end of section 10, just prior to being played.

Procuring a waterphone may well be quite problematic; less recherché substitute-instruments are likely to be needed. I have found that one or – better still – two *flexatones*, bowed and subjected to random pitch-changes while being allowed to resonate freely, mimics the timbral signature of a waterphone surprisingly well! An even more delicious possibility (involving not just the rebecist, but some additional instrumentalists chosen from among those who would not otherwise play throughout **[p]s(t)ellor/mnême**'s eleventh section): with the flexatone(s) being most prominent acoustically (situated towards the front, nearest the soloist), the consort could easily congregate a diverse corpus of appropriately-sounding metallic percussion instruments – *musical saws* (primarily bowed, yet also struck occasionally with vibraphone mallets of medium hardness), bowed *cymbals* (Turkish- and/or Chinese-style), a one-octave chromatic set of bowed *crotales* (bowed and/or struck [with hard glockenspiel mallets]), *metal-tube windchimes* of various sizes and tessituras, a *Mark tree*, *sleighbells*, *sistrums*, *strings of jingle bells* (comprising small pellet-bells, tiny bronze bells, or miniature iron herd-bells), a *Chinese bell tree*, *windchimes of triangles*, etc.

4. THE STRING INSTRUMENTS: DETAILS

PRELIMINARY OBSERVATIONS

Throughout my score of **[p]s(t)ellor/mnême**, all string parts (except for that of the *Celtic harp*) are essentially *transposing* – in accordance with those tunings or *scordature*

tabulated after these Performance Notes. I have therefore adopted a *tablature* approach herein: my string notation does not necessarily show the resultant pitches heard, but rather those 'notes' to be fingered.

The Specification of Strings and Courses

Within the *alto rebec* and three *bass viola da gamba* parts from **[p]s(t)ellor/mnême**, particular strings are specified by *Roman numerals* (as is usual for bowed string instruments), with the Roman numeral I representing the highest-pitched string. In the case of the *mandola*, however, the course to be played upon at any given moment is indicated thus: G, D, A, E (each letter being circled within my score). Whenever any such symbols have been omitted, the musical context surely renders the choice of string/course obvious; in these situations, there will probably be just a single possibility anyway...

Arpeggiation

– *rapidly* arpeggiate the notes of the chord; speed of execution is left to the discretion of the player.

Arrowheads indicate the *direction* of the arpeggio's action: ↑ = play the *lowest pitch* of the chord first; ↓ = play the *highest pitch* of the chord first.

Natural Harmonics

– on the specified open string(s) or course(s), lightly touch the *node* (with a left-hand finger) at or near that fret/location corresponding to the pitch notated with a broken-diamond notehead, while bowing or plucking ... in order to produce the natural harmonic sound. Harmonics must always be allowed to ring on.

I encourage the string players themselves to find a *bowing or plucking position* that furnishes the *cleanest, most sonorous timbral quality* for each harmonic. (Occasionally, however, technical or physical constraints may restrict the ambit of choice for a harmonic's bowing or plucking position.) Note: Resultant pitches of natural harmonics are nowhere displayed within the score itself.

The *viola da gambas'* broken-diamond noteheads are always preceded by ♮ (never by any other accidentals).

Mandola

The name *mandola* is apparently somewhat ambiguous; it can refer to several distinct, hybrid instruments from – or cognate to – the *mandolin family* (including one that is tuned just like a *viola*, and the so-called *Irish bouzouki*). However, the instrument I have in mind for **[p]s(t)ellor/mnême** is synonymous with the *octave mandolin* – namely, a large mandolin whose strings, when tuned normally, sound *one octave lower* than those of the mandolin.

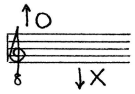
Microtuning of the Mandola's Open Strings

One string from each course of the mandola ought to be very slightly lowered in pitch, thereby producing a richer basic timbre – a 'chorus effect'. The resultant beat-frequencies should be no greater than 6 Hz (beats-per-second) on the open strings, with different beat-frequencies being generated upon each (open) course; precise details are left to the discretion of the mandolist.

Plectra

For louder dynamic levels and improved sound-projection on the mandola, I recommend the use of a thicker, less flexible plectrum – such as a "Fender Heavy". Indeed, to obtain the widest possible dynamic and timbral range throughout **[p]s(t)ellor/mnême**, having the mandolist draw upon a menu of two or more different plectra would be ideal.

Strumming the Mandola's Strings behind the Nut or behind the Bridge



– strum the mandola's strings *behind the nut*, and strum the mandola's strings *behind the bridge*, respectively. In both cases, *all* eight strings are to be strummed, and they should always be permitted to ring on unimpeded. Note, moreover, that the direction of arpeggiation is always indicated in conjunction with these two symbols.

Randomized Parameters

Randomize: {the addition of unspecified material; *hammer/pull-off* (i.e. pluck only the first note and *hammer* or *pull-off* the subsequent notes with the left-hand fingers, according to the melodic contour), *legato* (i.e. pluck only the first note, but for the subsequent notes, merely *place* or *lift* left-hand fingers on or off the fingerboard, according to the melodic contour); alternations between plucking materials (i.e. *plectra*, and the *pad* or *tip* of a right-hand finger); plucking position, from *molto sul ponticello* (i.e. plucking the string(s) *very* close to the bridge indeed) through to *molto sul tasto* (i.e. plucking *precisely* at the middle of the vibrating length of the string(s) – directly above the twelfth fret for the open string(s), or directly above the fret which is twelve frets higher than that fret where the finger stops the string [which may actually be beyond the end of the fingerboard]); *pp*↔*mf* (dynamic levels ranging between *pp* and *mf*), but occasionally *(f)f*}

Optional: also Randomize: {*pitch-bending* and *vibrato* (i.e. the mandolist can either depress and release the string(s) *behind the bridge* with the right-hand index finger [and/or other right-hand fingers] causing the pitch to fluctuate above the written note, or they can instead push and release the string(s) *laterally* – i.e. parallel to the frets – with the left-hand finger(s), causing the pitch to fluctuate *slightly* above the written note) – both less than 10% of the time}

Celtic Harp

Unlike our modern harp (with its pedal-operated mechanism that retunes pitch-classes globally), the *Celtic harp* instead possesses many *levers* which retune its strings *individually*: when a lever is engaged, its corresponding string's pitch will be raised by a semitone. (Despite the Celtic harp's smaller pitch-range by comparison with the modern harp, the former's system of autonomous levers proffers the potentiality for composers to devise *multi-octave scale-patterns* – as I have done within **[p]s(t)ellor/mnême**.)

With its levers deactivated, the Celtic harp's strings – upon the particular instrument which was employed for the world première of **[p]s(t)ellor/mnême** – sound thus:

D♮1; thence diatonically – from G♮1 to G♮5, inclusive. *

* The lowest (D♮1) string *has no lever*, but can be variably tuned 'by hand' from about C♮1 up to around F♮1. Note too that for **[p]s(t)ellor/mnême**, the E♮4 string must also be tuned down 'by hand' a quartertone, to E𝄳4, before its lever is applied.

HARP GLISSANDI

Execute *glissandi* on the Celtic harp by sweeping finger-pads or -nails across its strings, (roughly) according to the given contours. (Throughout **[p]s(t)ellor/mnême**, the first and last notes of all Celtic harp *glissandi* ought not to be overly emphasized!)

RANDOMIZED PARAMETERS

Randomize: {the addition of unspecified material; *glissandi* – less than 10% of the time; *près de la table* (i.e. plucking the string(s) near the Celtic harp's soundboard); *arpeggiation* (which may be interpreted quite radically, with chords being 'broken up' unevenly across a time-span of several seconds); *pp*↔*mf* (dynamic levels ranging between *pp* and *mf*), and occasionally louder – if possible}

ALTO REBEC

Because the three-string *alto rebec* is normally not supported under the chin, position-changes may be rather awkward and perhaps time-consuming. Hence, throughout **[p]s(t)ellor/mnême**, I have restricted most of the alto rebec's pitches to those which are playable in 1st position. (The few exceptions, all of them playable in 2nd position, have been well flagged within my score.) Given this constraint, certain higher pitches (as well as those sounding below open-string II's pitch) can only be produced on one string – circumventing the need for me to specify their strings explicitly with Roman numerals.

RANDOMIZED PARAMETERS

Randomize: {the addition of unspecified material; bowing position, from *(molto) sul ponticello* (i.e. bowing the string(s) [*very*] close to the bridge) through to *(molto) sul tasto* (i.e. bowing the string(s) 'up the neck' somewhat [on or towards the fingerboard], nearer to the middle of the vibrating string-length than usual); *vibrato* – less than 20% of the time; changes of bowing direction (*upbow* ↔ *downbow*); bowed *tremolo*; *spiccato tremolo* (i.e. throwing the rebec bow onto the string(s) – *jeté* – and then allowing it to bounce freely, perhaps with some assistance from the right hand) – less than 10% of the time; *col legno battuto* (i.e. turning the rebec bow upside down so that its wooden part alone is bounced on the string(s), to produce a distinctive woody 'click' with each attack) – less than 10% of the time; *overbowing* (i.e. using excessive bow-pressure to produce a rather harsh grating or squawking sound) – less than 10% of the time; *snap pizzicato* (i.e. ♁ : lifting the string(s) with the thumb and forefinger then allowing it to snap back percussively against the rebec's fingerboard) – less than 10% of the time; *portamenti* (not *glissandi*); *ppp*↔*mf* (dynamic levels ranging between *ppp* and *mf*), but occasionally *f*}

BASS VIOLA DA GAMBAS

Although *bass viola da gambas* are not at all uncommon instruments nowadays, any one of them in **[p]s(t)ellor/mnême** may gainfully be replaced by a much rarer bowed string instrument (if it is available!) – the *baryton*. (A baryton is essentially a bass viola da gamba possessing nine or so additional wire strings which are not activated directly, but instead vibrate sympathetically in response to vibrations from the instrument's six main strings: baryton players are therefore encouraged to experiment with the sympathetic strings' tunings – to discover [microtonal] intonations for them that furnish maximal sympathetic resonance; an extra 'randomized parameter' might also be considered for any barytons – the judicious, tasteful and intermittent intermingling of plucked or arpeggiated sympathetic-string tones with more orthodox sounds from the baryton's main strings.)

LEFT-HAND STOPPING TECHNIQUE, AND PIZZICATI

Should certain wide left-hand stretches (particularly in double stops) from **[p]s(t)ellor/mnême** prove too uncomfortable for those viola da gamba players with small hands, then 'thumb position' violoncello technique might be adopted – although this was seldom, if ever, done historically.

Left-hand pizzicati may prove expeditious within those passages from **[p]s(t)ellor/mnême** where *pizzicati* executed ordinarily by the right hand seem too cumbersome – particularly for section 3, wherein *pizzicati* and *arco* are interlocked. However, since the left-hand-pizzicato sound is (at least to my ear) weak and timbrally 'inferior', it should only be used *if absolutely necessary* – as a last resort.

RANDOMIZED PARAMETERS

Randomize: {the addition of unspecified material; bowing position, from *(molto) sul ponticello* (i.e. bowing the string(s) [*very*] close to the bridge) through to *(molto) sul tasto* (i.e. bowing the string(s) 'up the neck' somewhat [on or towards the fingerboard], nearer to the middle of the vibrating string-length than usual); *vibrato* – less than 20% of the time; changes of bowing direction (*upbow* ↔ *downbow*); *ppp*↔*mf* (dynamic levels ranging between *ppp* and *mf*), but occasionally *f*}

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[P]s(t)ellor/mnême

Cyms F C

1 H.Bells 2

Mandola

C.Harp

A.Rebec

1 B.V.d.G. 2 B.V.d.G. 3

TABLE OF TUNINGS AND SCORDATURE

Mandola: one string on each course is to be very slightly lowered in pitch, thereby producing a richer basic timbre – a 'chorus effect'. Resultant beat-frequencies should be no greater than 6 Hz on the open strings, with different beat-frequencies being generated upon each (open) course.

tuned by hand, if necessary.

tune E♮ down a quartertone to E𝄳, then apply the lever.

THE NOTATION OF MICROTONES

Quartertones are well-tempered (24 e.t.):

quartertone sharp from F♮

quartertone flat from A♮

etc.

Arrows on accidentals indicate non-tempered intonational inflections up to an eighthtone:

etc.

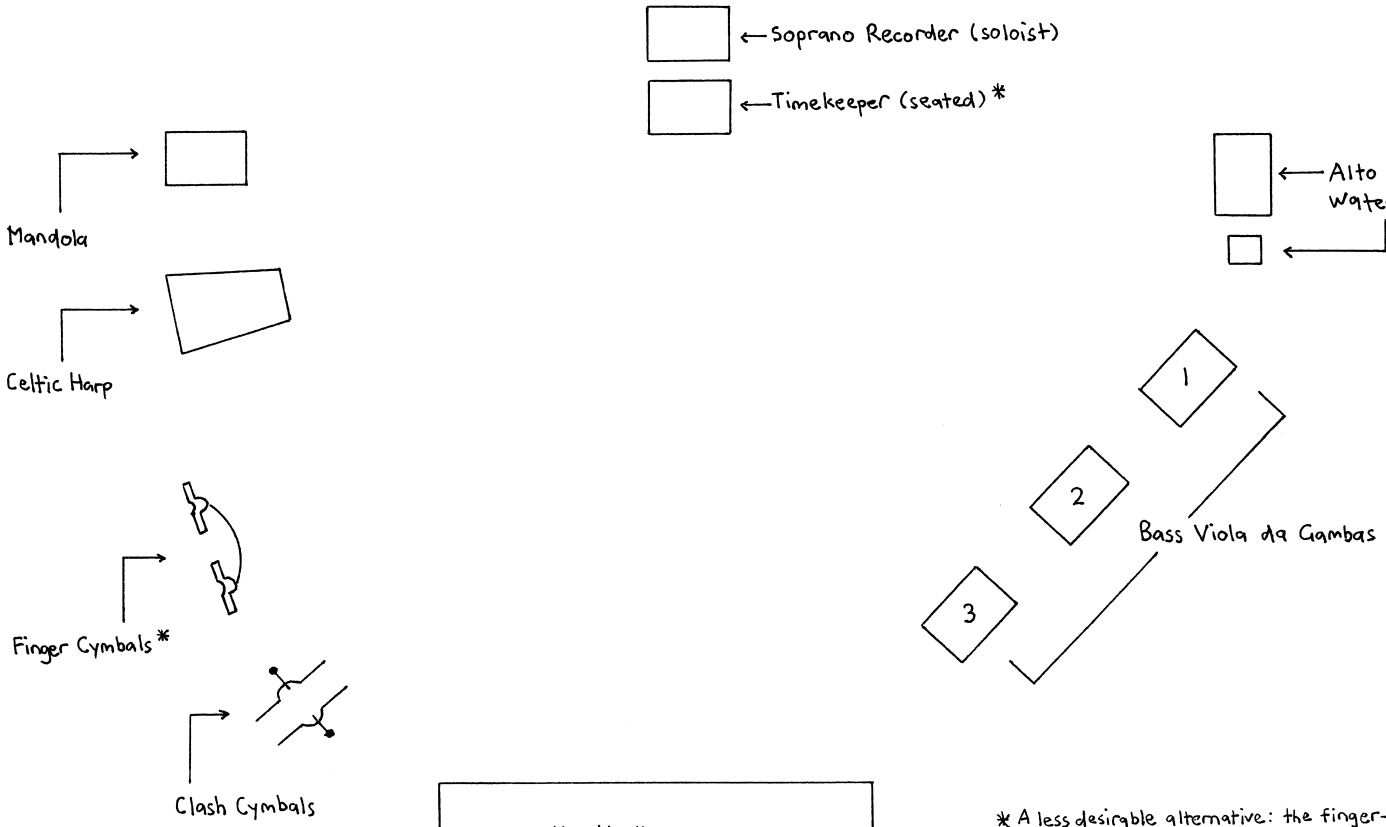
PHYSICAL LAYOUT OF THE INSTRUMENTS...

AUDIENCE

[p]s(t)ellor/mnême

© Ian Shanahan, Sydney, Australia, 23 August 1997.

- In Memoriam James Owen Shanahan (25/9/1922 – 8/7/1997)
- To Winsome Evans; For The Renaissance Players' 30th anniversary.



* A less desirable alternative: the finger-cymbalist (seated just behind the soloist) may fulfil the rôle of timekeeper as well!

□ The waterphone – sounded by the rebec player only during the final section – should be hidden from the view of the audience as much as possible by being placed in a box, prior to its playing... for the sake of surprise.

SOPRANO RECORDER

[p]s(t)ellor/mneme — Ian Shanahan (1997)

α: Almost a whole breath-length; Rand { , normal articulation, "breath trills", air-flow (such that the given pitches are elicited)}

β: Rand { octave transposition, add material, (s)pacing of events, SILENCE, articulation (, normal, etc.), microtonal deviations, glissandi, vibrato, air-flow, multiphonics, +/- voice, air-noise}

[37·58" tutti: scalar, mechanical, aloof...]

1

Bells 15"–20"

<α> <β>

2 [43·97" solo recorder]

<α> <β>

3 [24·07" rebec + gambas (harmonics, pizz.)]

<α> <β>

4 [32·47" harp solo]

<α> <β>

5 [15·47" mandola + rebec + gambas (pizz.)]

<α> <β>

6 [12·52" tutti]

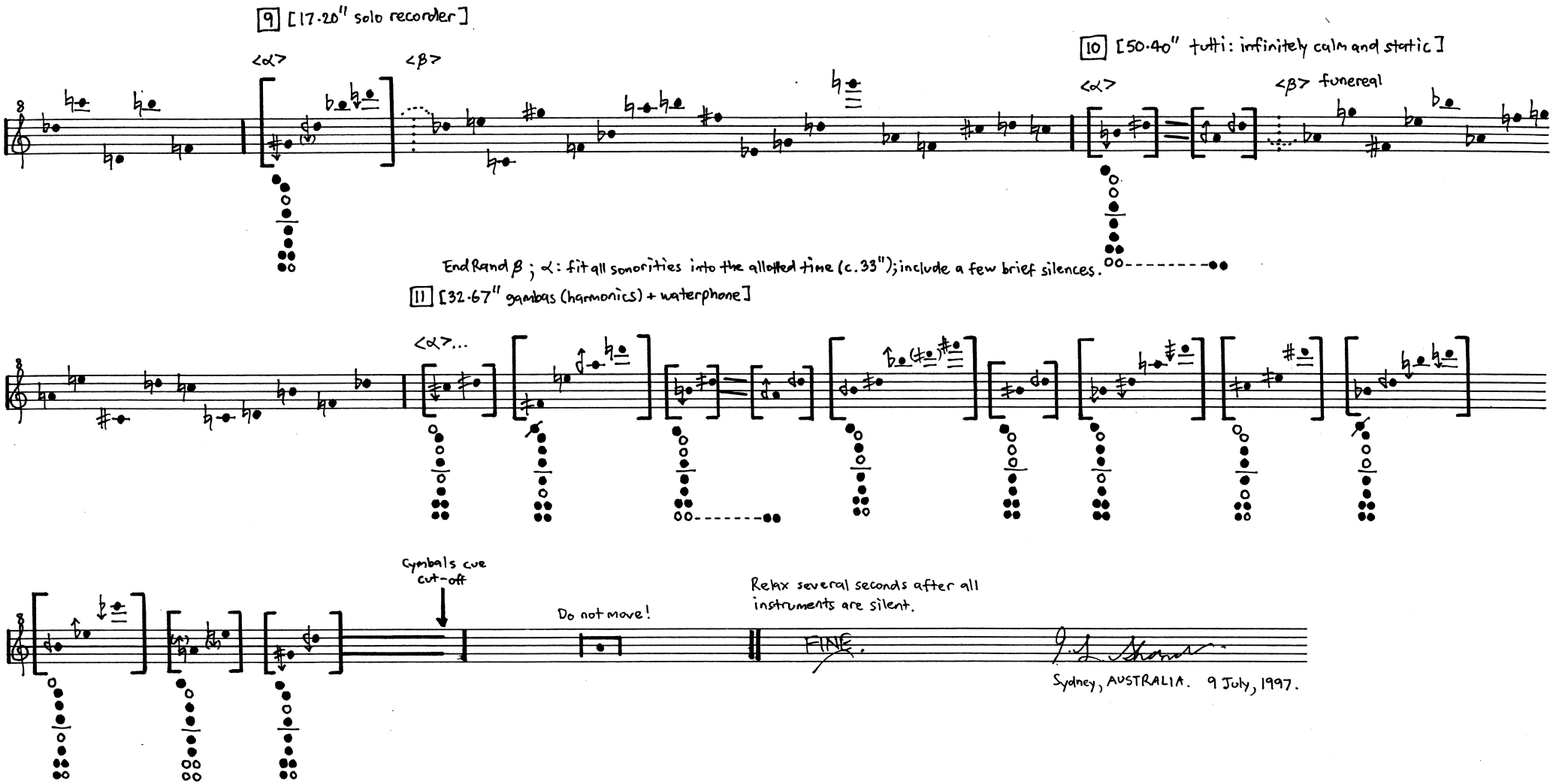
<α> <β>

7 [26·33" mandola + harp]

<α> <β>

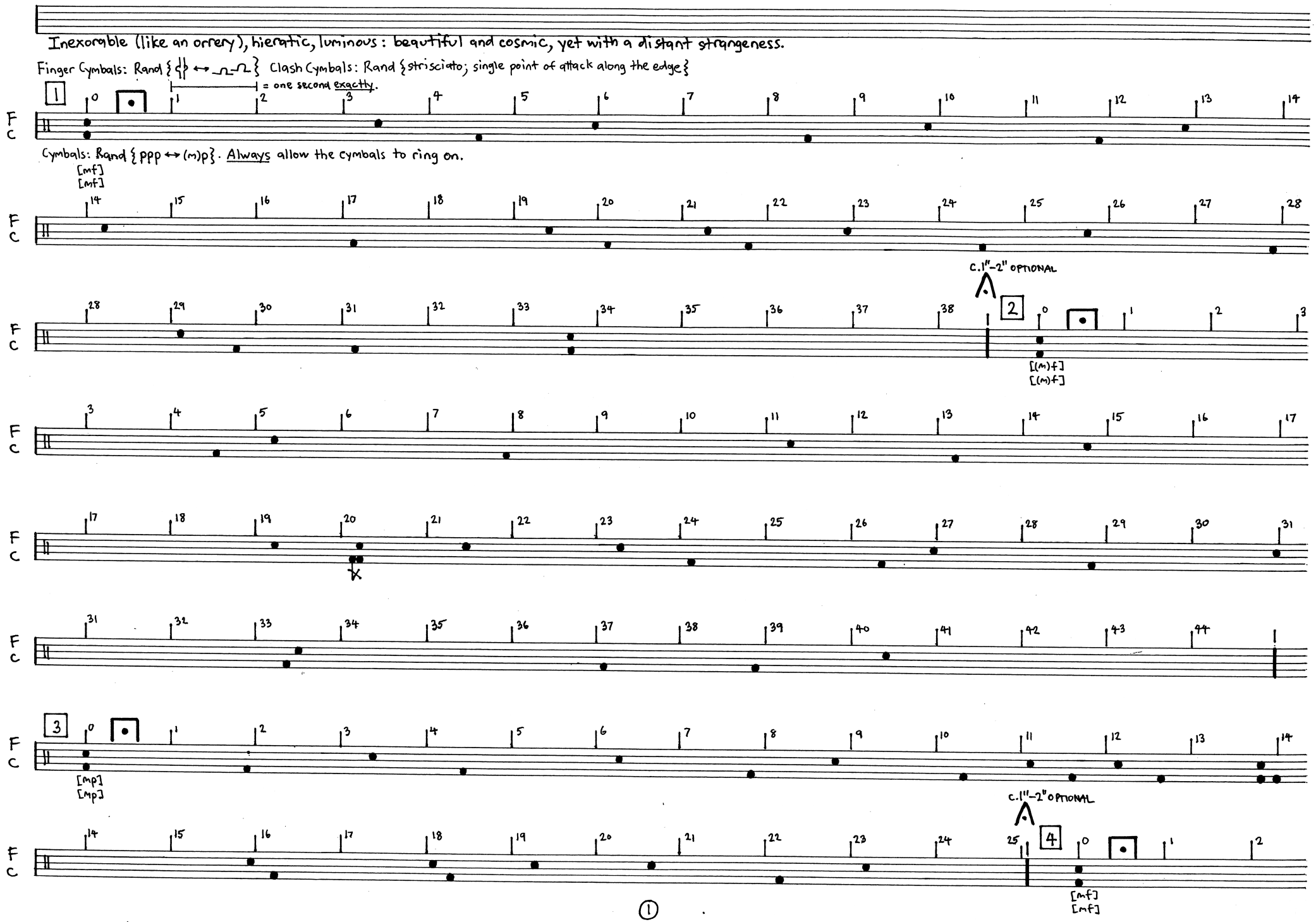
8 [28·60" mandola + harp + rebec]

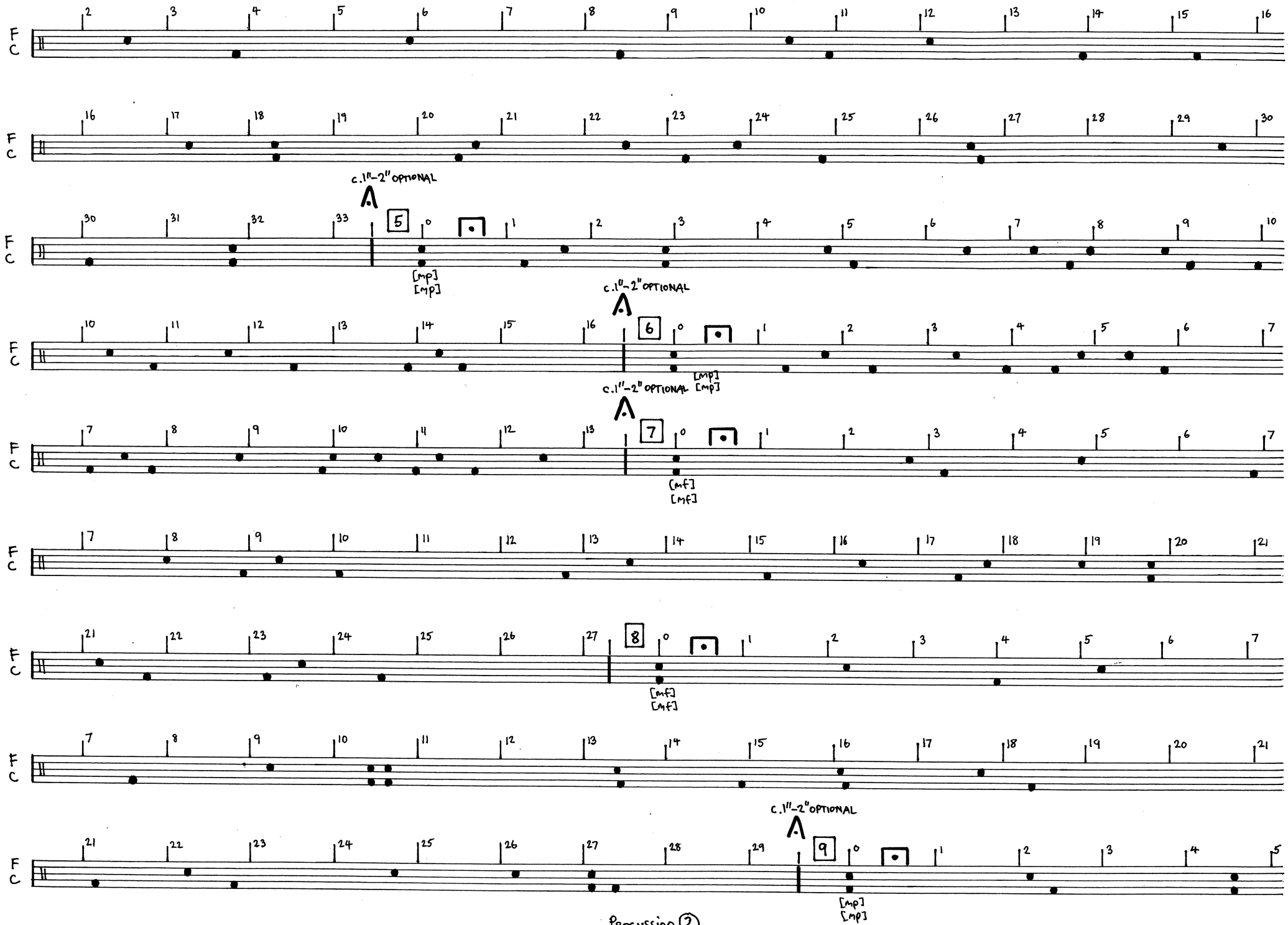
<α> <β>

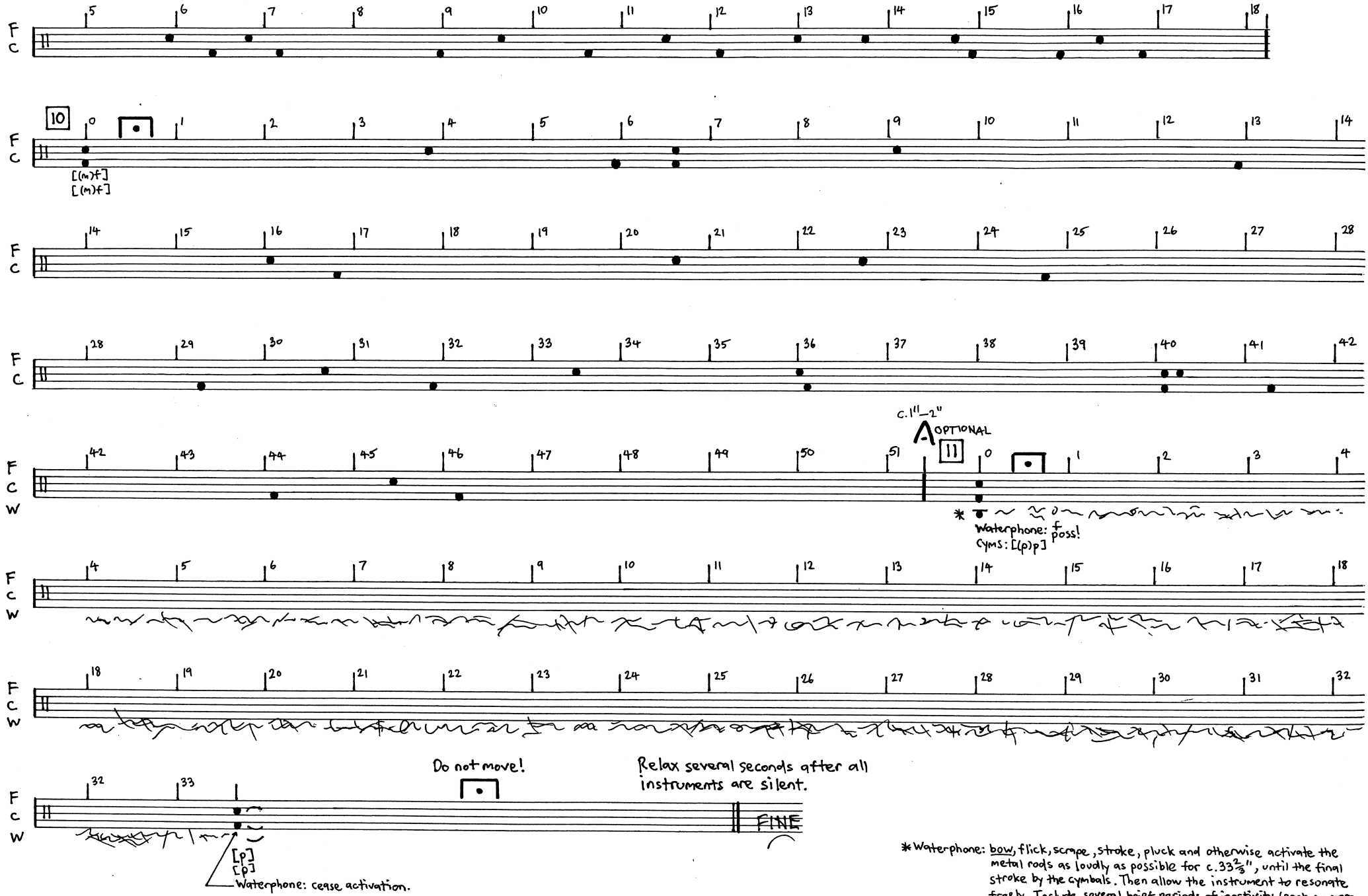

9 [17·20" solo recorder]
<α>
<β>
10 [50·40" tutti: infinitely calm and static]
<α>
<β> funereal
End Rand β ; α: fit all sonorities into the allotted time (c.33"); include a few brief silences.
11 [32·67" gambas (harmonics) + waterphone]
<α>...
Cymbals cue cut-off
Do not move!
Relax several seconds after all instruments are silent.
FINE.
Sydney, AUSTRALIA. 9 July, 1997.

PERCUSSION: Small Clash Cymbals, Finger Cymbals, Waterphone

[p]s(t)ellor/mneme — Ian Shanahan (1997)




F C
c.1"-2" OPTIONAL
5
[mp]
[mp]
c.1"-2" OPTIONAL
6
[mp]
[mp]
c.1"-2" OPTIONAL
7
[mf]
[mf]
8
[mf]
[mf]
c.1"-2" OPTIONAL
9
[mp]
[mp]

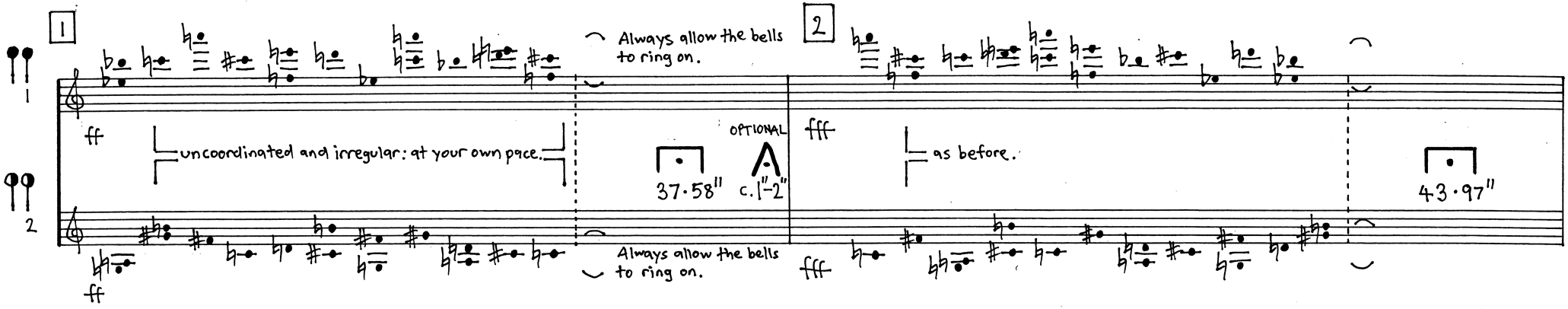


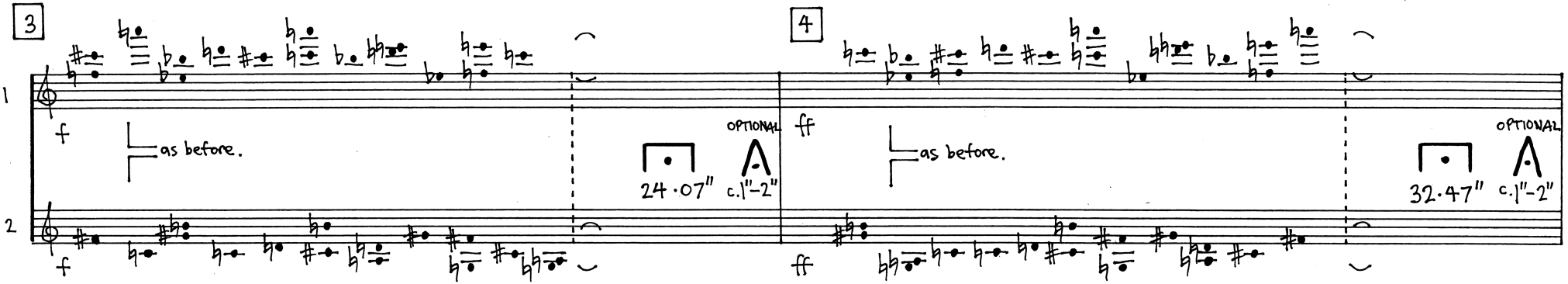
*Waterphone: bow, flick, scrape, stroke, pluck and otherwise activate the metal rods as loudly as possible for c.33⅔", until the final stroke by the cymbals. Then allow the instrument to resonate freely. Include several brief periods of inactivity (each no more than about 2" in duration).

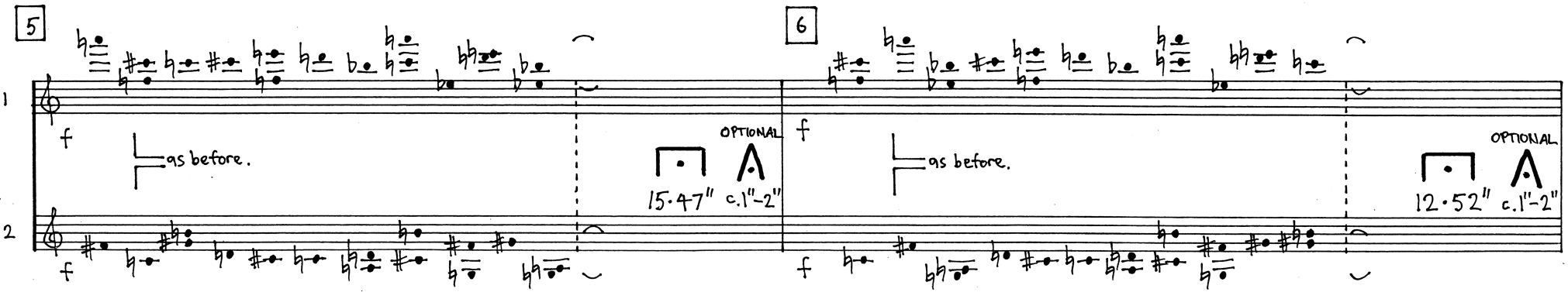
HANDBELLS

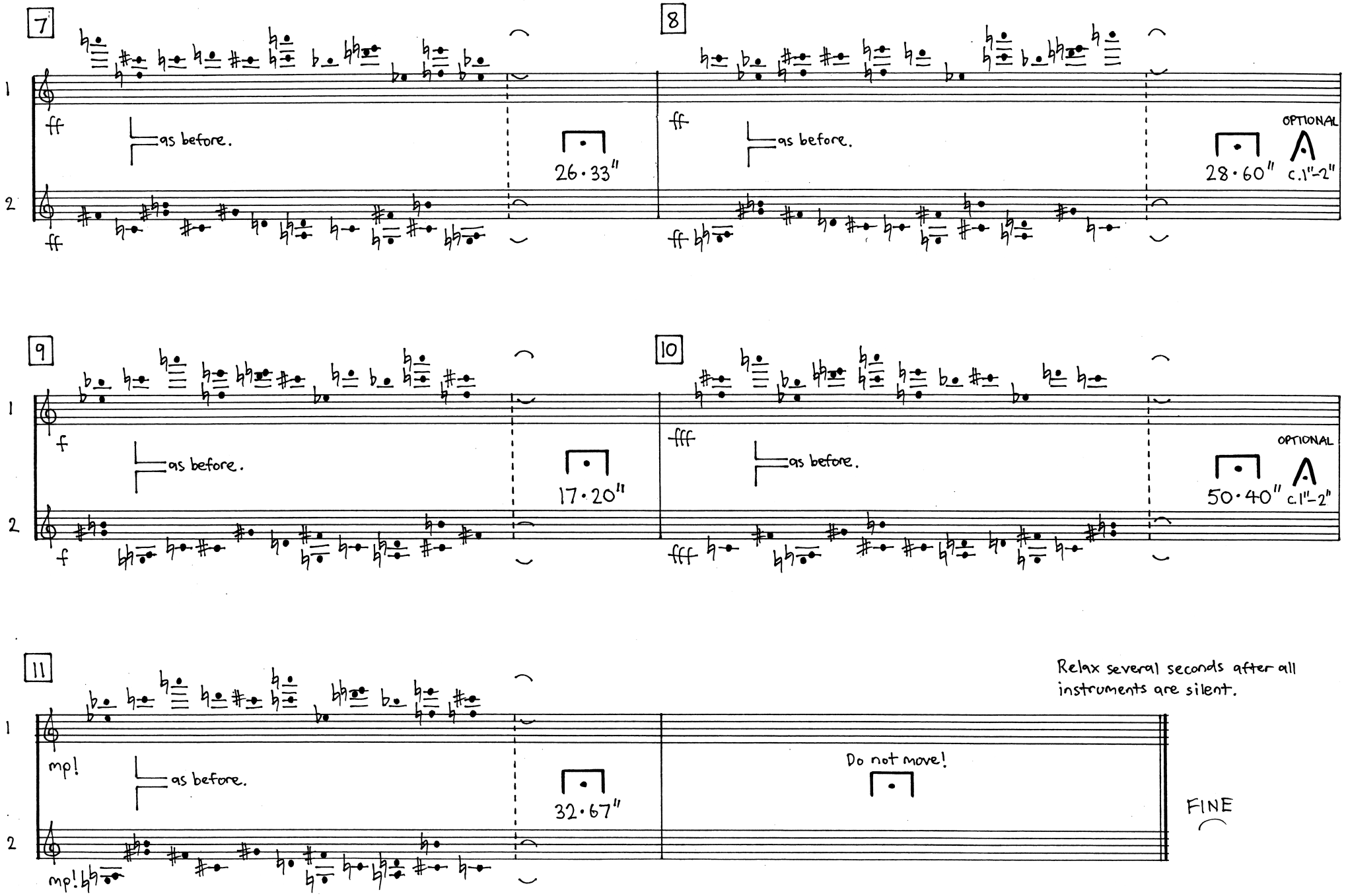
[p]s(t)ellor/mneme – Ian Shanahan (1997)

Inexorable (like an orrery), hieratic, luminous: beautiful and cosmic, yet with a distant strangeness.








7
8
9
10
11
1
2
ff
as before.
26·33"
OPTIONAL
28·60"
c.1"–2"
f
17·20"
fff
50·40"
mp!
32·67"
Do not move!
Relax several seconds after all instruments are silent.
FINE

MANDOLA

Lp[s(t)ellor/mneme – Ian Shanahan (1997)

Inexorable (like an orrery), hieratic, luminous: beautiful and cosmic, yet with a distant strangeness.

Rand { add notes...; hammer/pull-off, legato; plectrum ↔ finger; molto s.p. ↔ molto s.t.; pp ↔ mf (occasionally (f)f)} Optional: Rand { bend string(s) (<10%); vibrato (<10%)}

= one second exactly.

1

[f poss.]

mechanical and aloof, almost like a wind-up toy!

c.1"–2"

A OPTIONAL

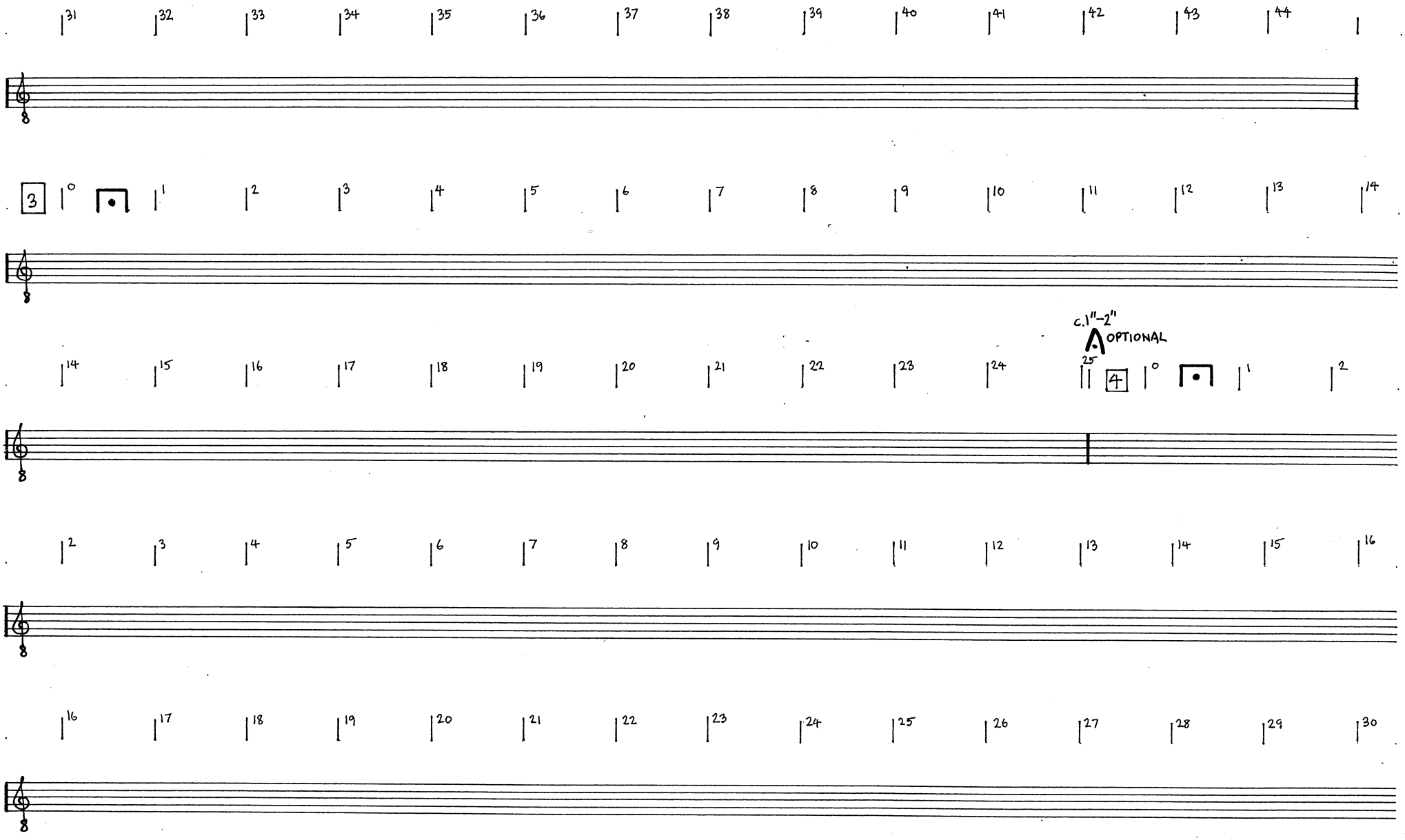
2

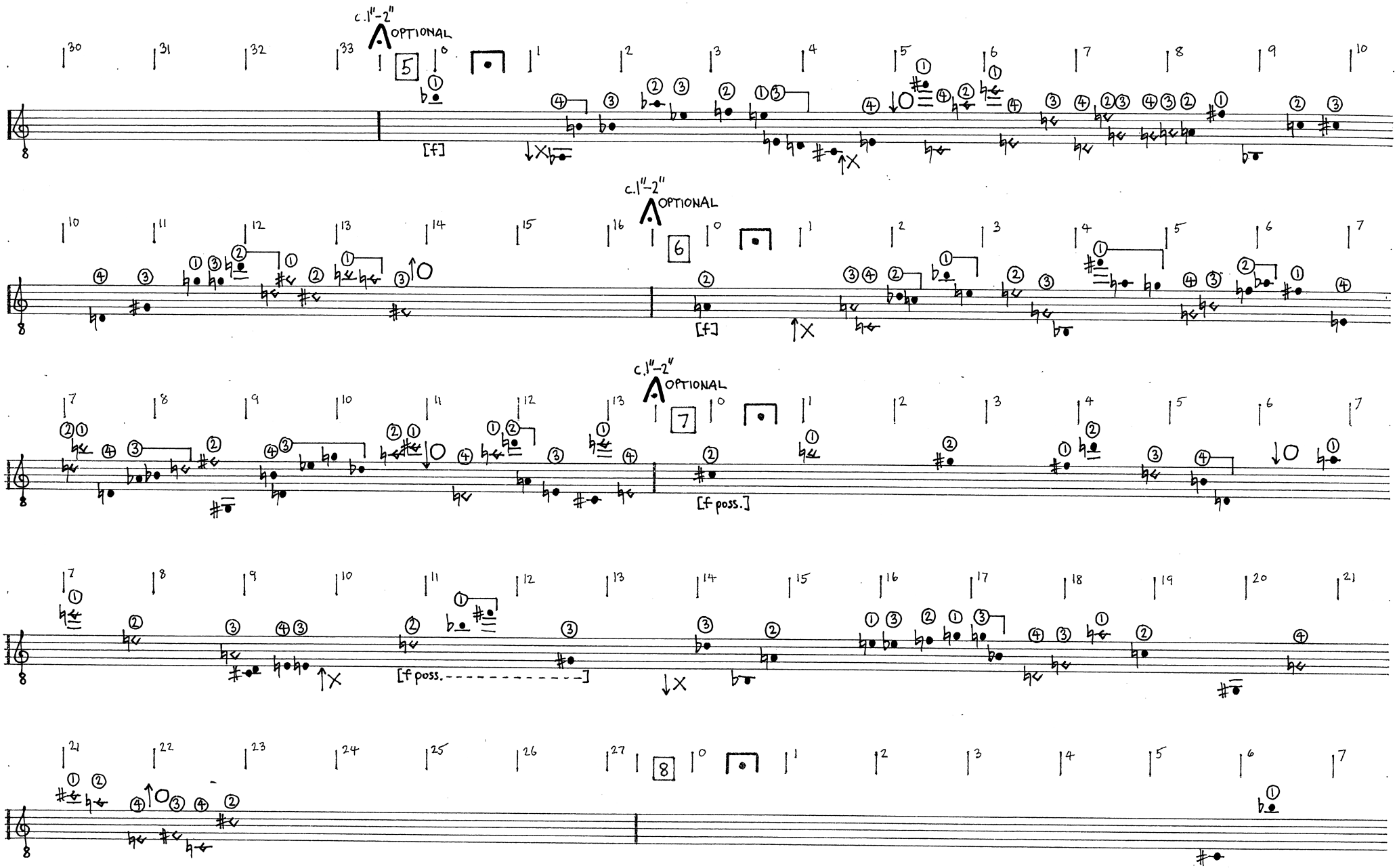
TACET until 5 !!

[f poss.]

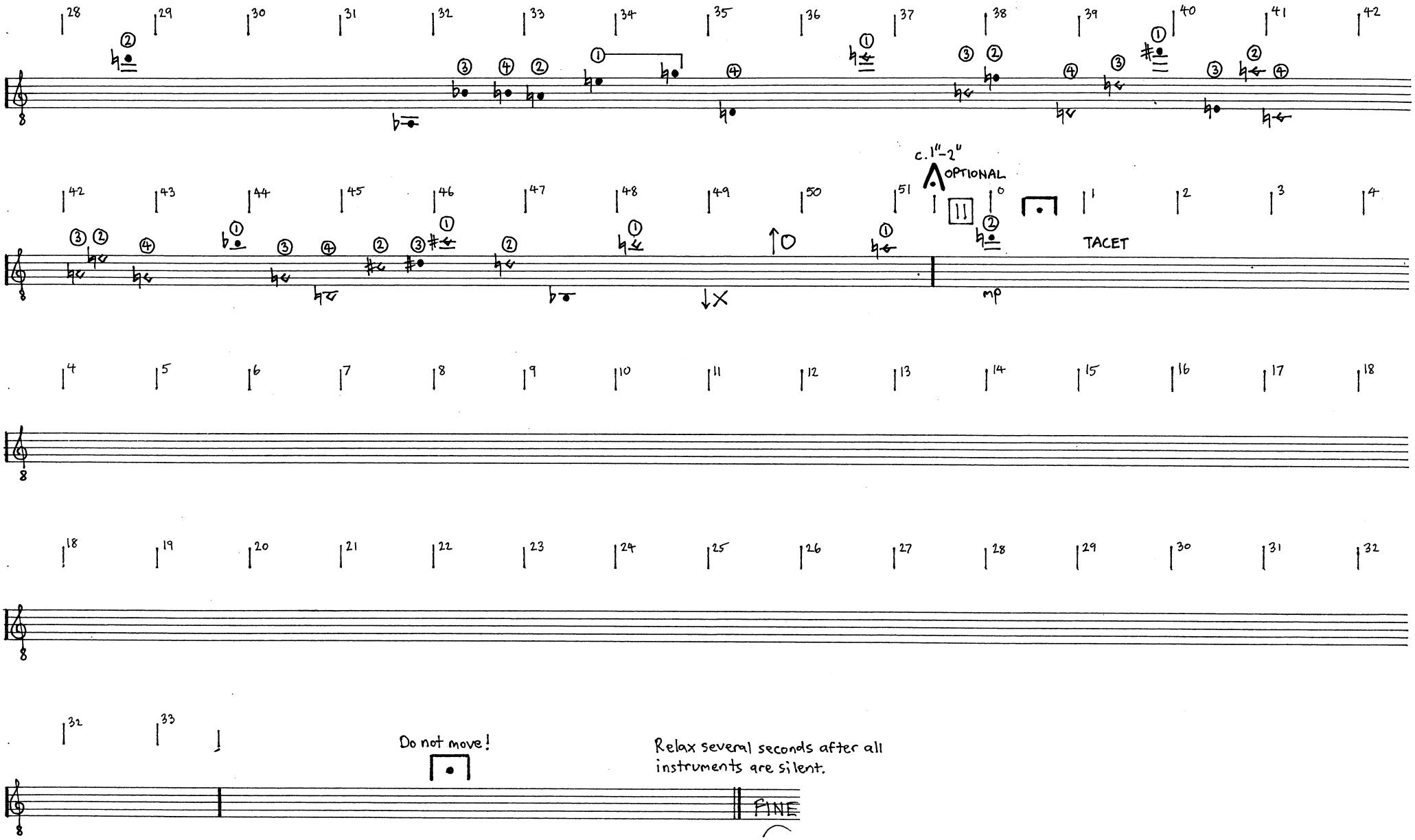
SCORDATURA*

*Tune one string per course down slightly, so that each course 'beats' at a rate of no more than 6 Hz (6 cycles per second).


31 32 33 34 35 36 37 38 39 40 41 42 43 44
3
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
14 15 16 17 18 19 20 21 22 23 24
c.1"-2"
A
OPTIONAL
25
4
0 1 2
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


c.1"-2"
OPTIONAL
[f]
c.1"-2"
OPTIONAL
[f]
c.1"-2"
OPTIONAL
[f poss.]
[f poss.----------]


c.1"–2"
OPTIONAL
TACET until 10
[f]
Infinitely calm and static. Rand Only {plectrum ↔ finger; molto s.p. ↔ molto s.t.; pp ↔ mf}
funereal.

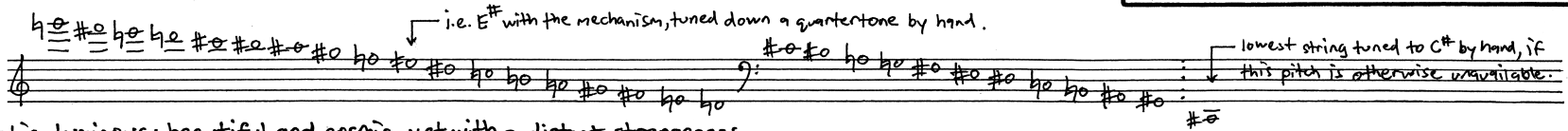

c. 1"–2"
OPTIONAL
TACET
mp
Do not move!
Relax several seconds after all instruments are silent.
FINE

⑤ Mandola

[p]s(t)ellor/mneme – Ian Shanahan (1997)

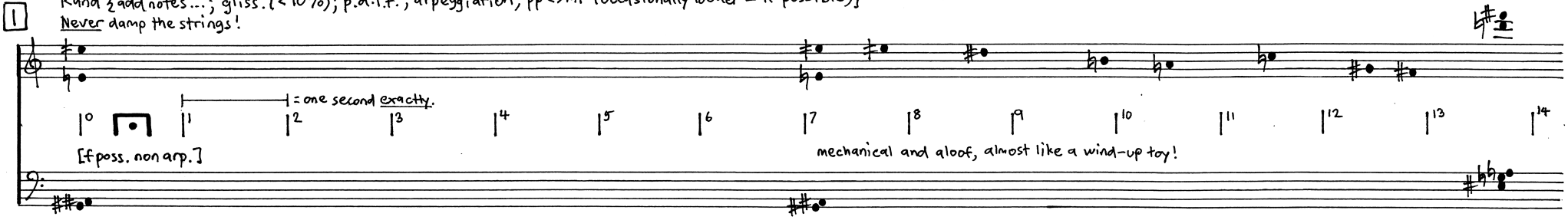
CELTIC HARP

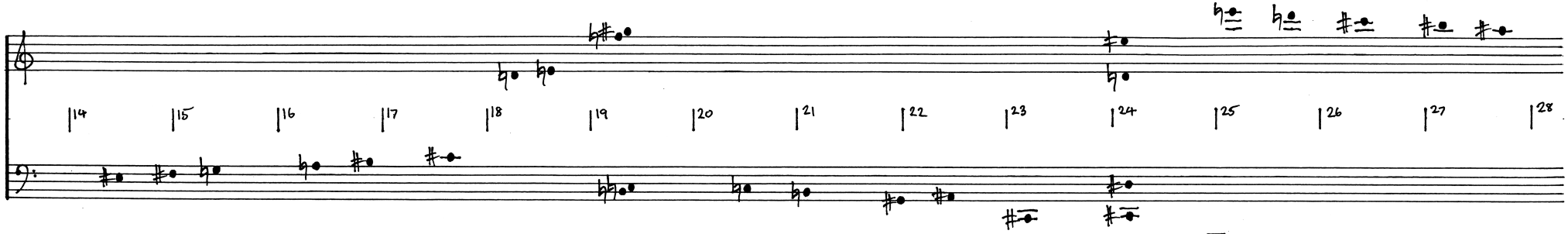
TUNING:

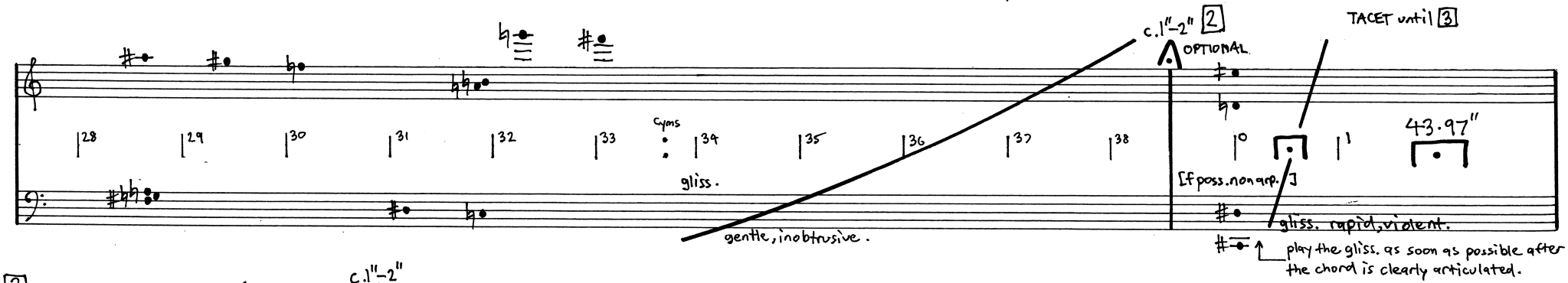


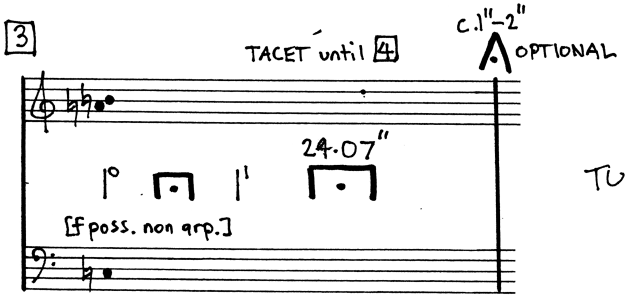
Inexorable (like an orrery), hieratic, luminous: beautiful and cosmic, yet with a distant strangeness.

1 Rand & add notes...; gliss. (< 10%); p.d.l.t.; arpeggiation; pp ↔ mf (occasionally louder – if possible)}
Never damp the strings!

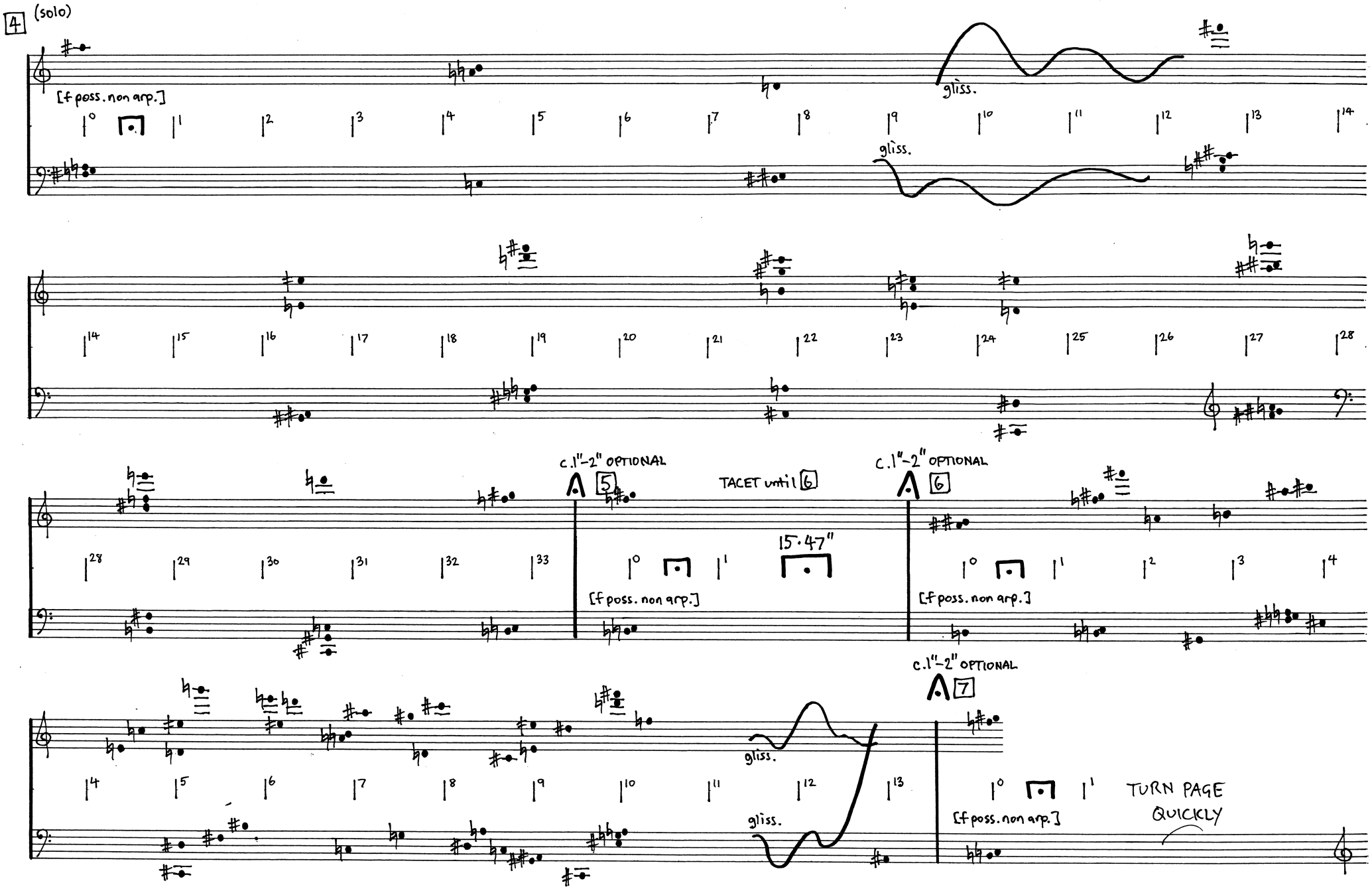


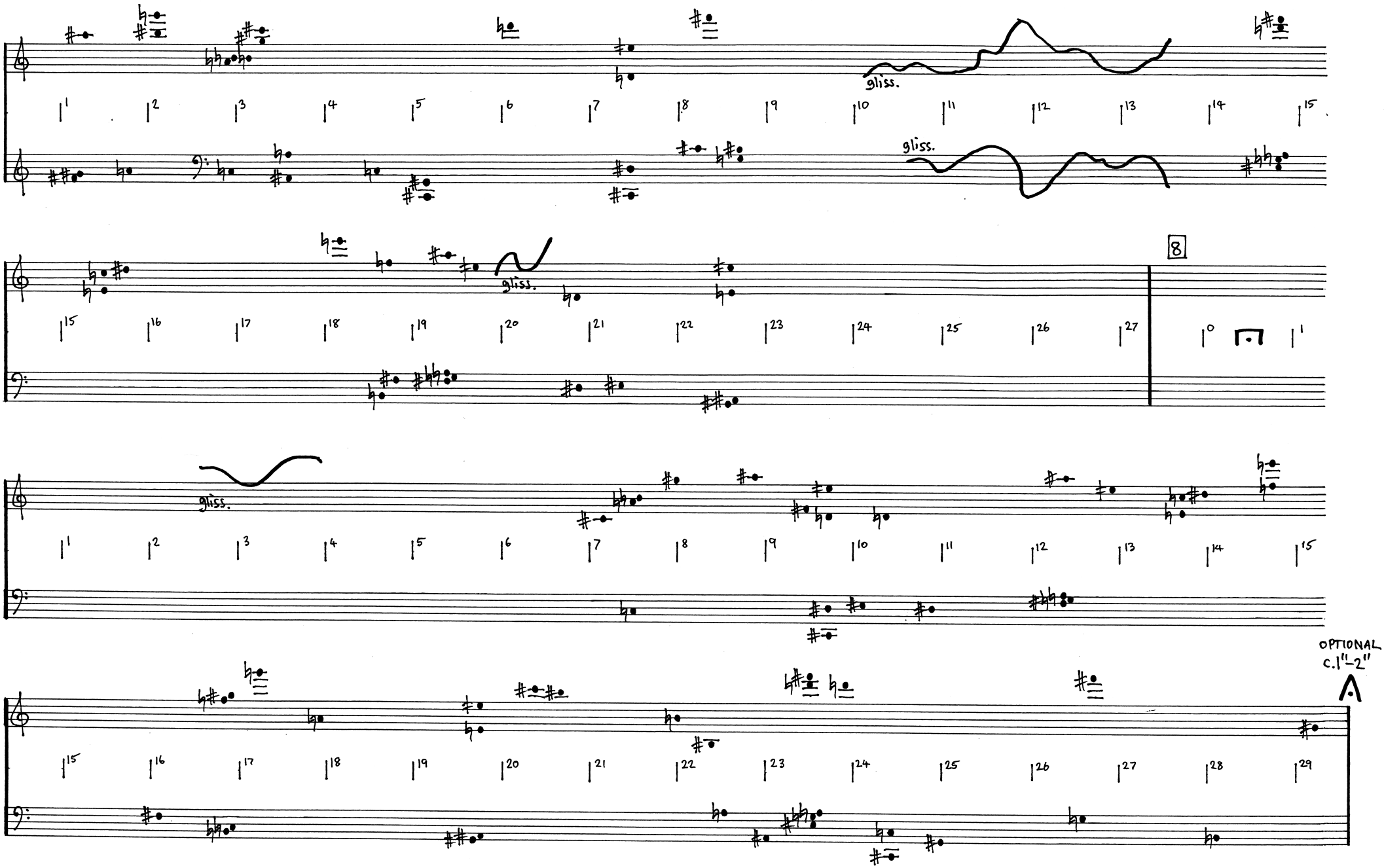






TURN PAGE

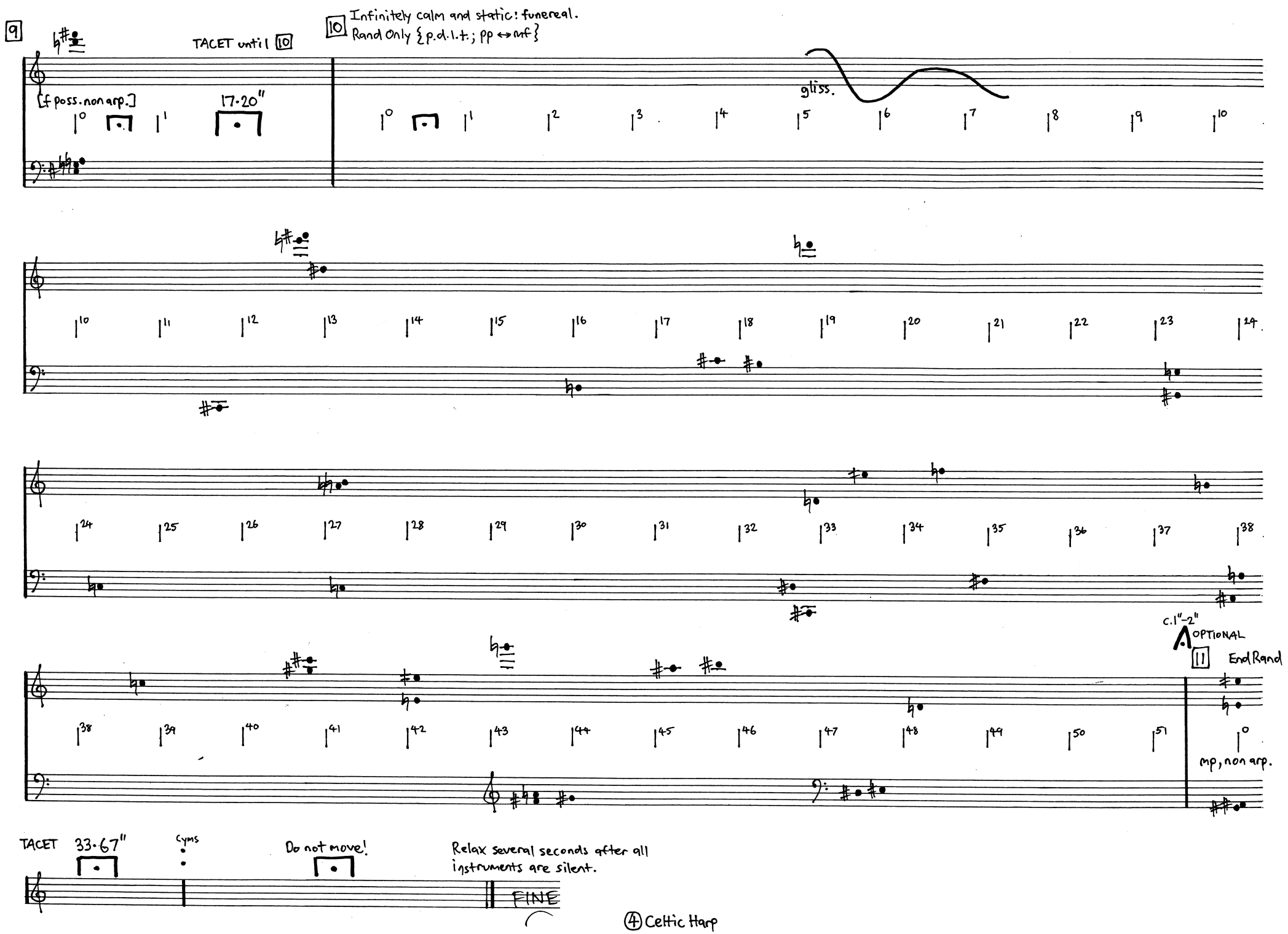

4 (solo)
[f poss. non arp.]
gliss.
gliss.
c.1"-2" OPTIONAL
5
TACET until 6
c.1"-2" OPTIONAL
6
15·47"
[f poss. non arp.]
[f poss. non arp.]
c.1"-2" OPTIONAL
7
gliss.
gliss.
[f poss. non arp.]
TURN PAGE QUICKLY



[chord at start of 9:]

[fposs. non arp.]

TURN PAGE QUICKLY!


9
TACET until 10
10 Infinitely calm and static: funereal.
Rand Only {p.d.l.t.; pp ↔ mf}
[f poss. non arp.]
17-20"
gliss.
c.1"-2"
OPTIONAL
11 End Rand
mp, non arp.
TACET 33-67"
cyms
Do not move!
Relax several seconds after all instruments are silent.
FINE
④ Celtic Harp

ALTO REBEC

[p]s(t)ellor/mneme – Ian Shanahan (1997)

Inexorable (like an orrery), hieratic, luminous: beautiful and cosmic, yet with a distant strangeness.

Rand{ add notes...; (molto) s.p. ↔ (molto) s.t.; vibrato (<20%); V ↔ ⊓; [spiccato trem.] (<10%); c.l.b. (<10%); (<10%); port. (not gliss.); ppp ↔ mf (occasionally f)}

= one second exactly.

1 *

*Accentuate strongly the attack of each note in 1, then decrease the dynamic level immediately as the note is sustained (e.g. sffz:p).

I

[f, non dim.]

I II

mechanical and aloof, almost like a wind-up toy!

II III II

c.1"-2"

OPTIONAL

2

TACET until 3

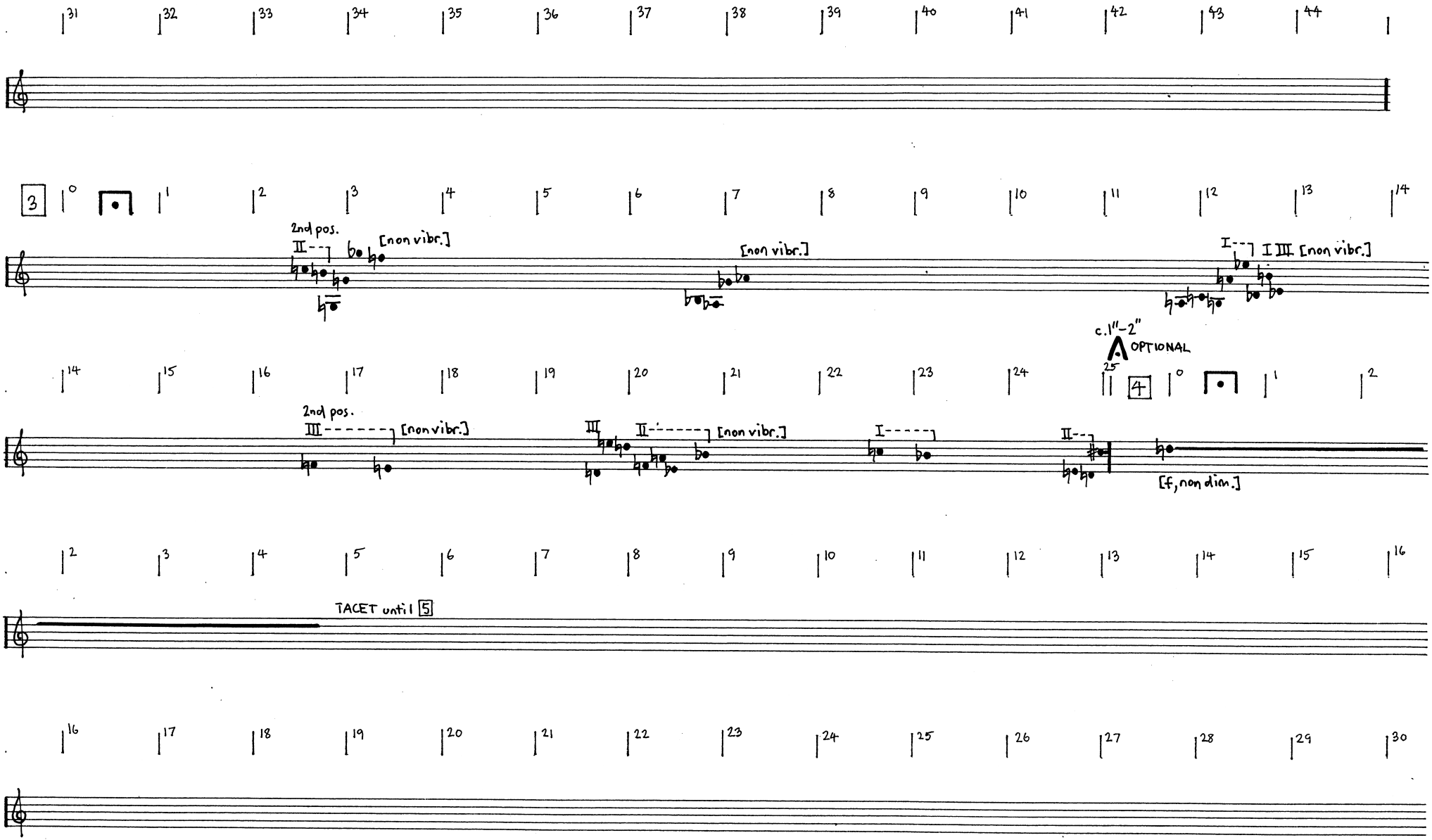
II I III

2nd pos.

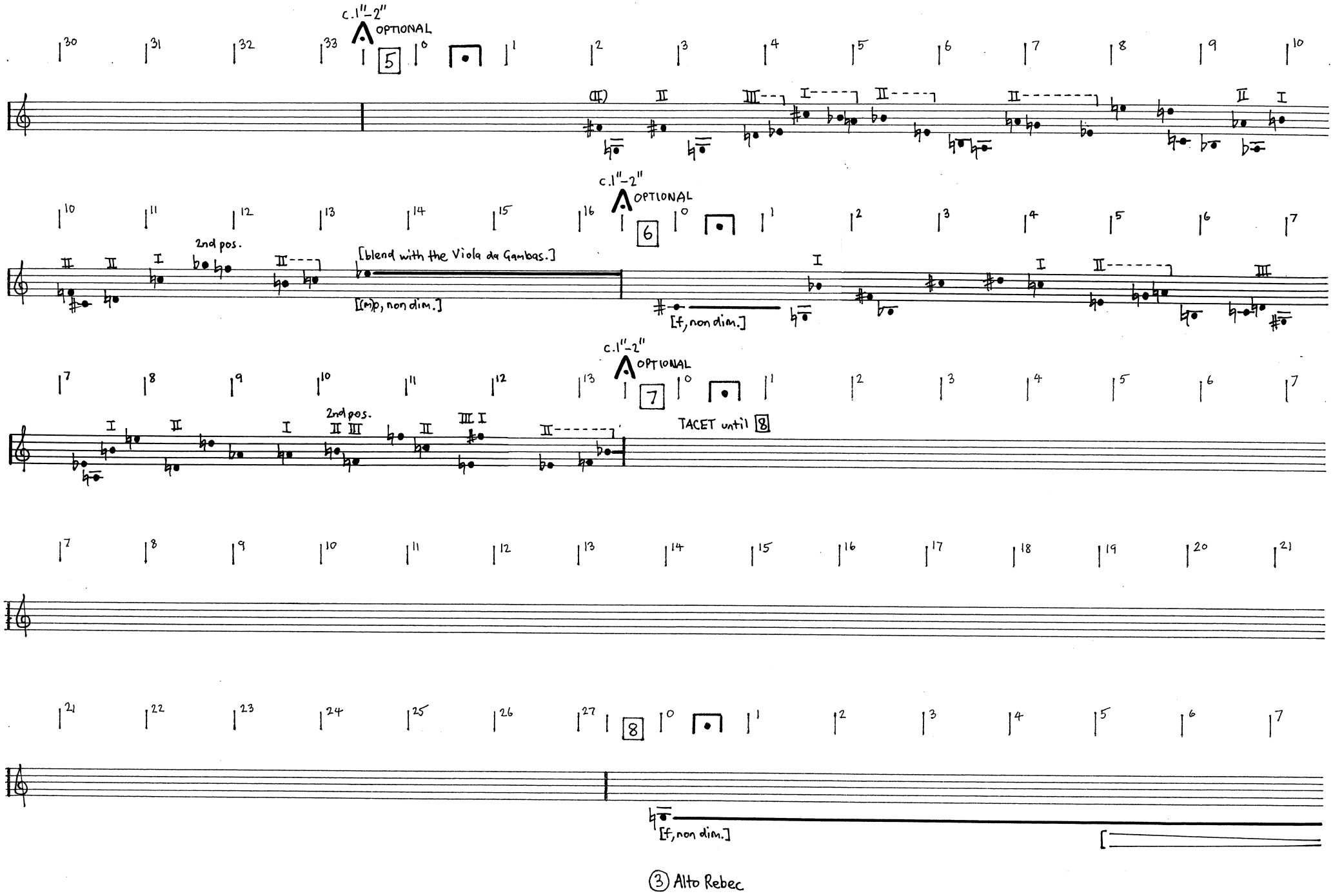
II

SCORDATURA:

III II I

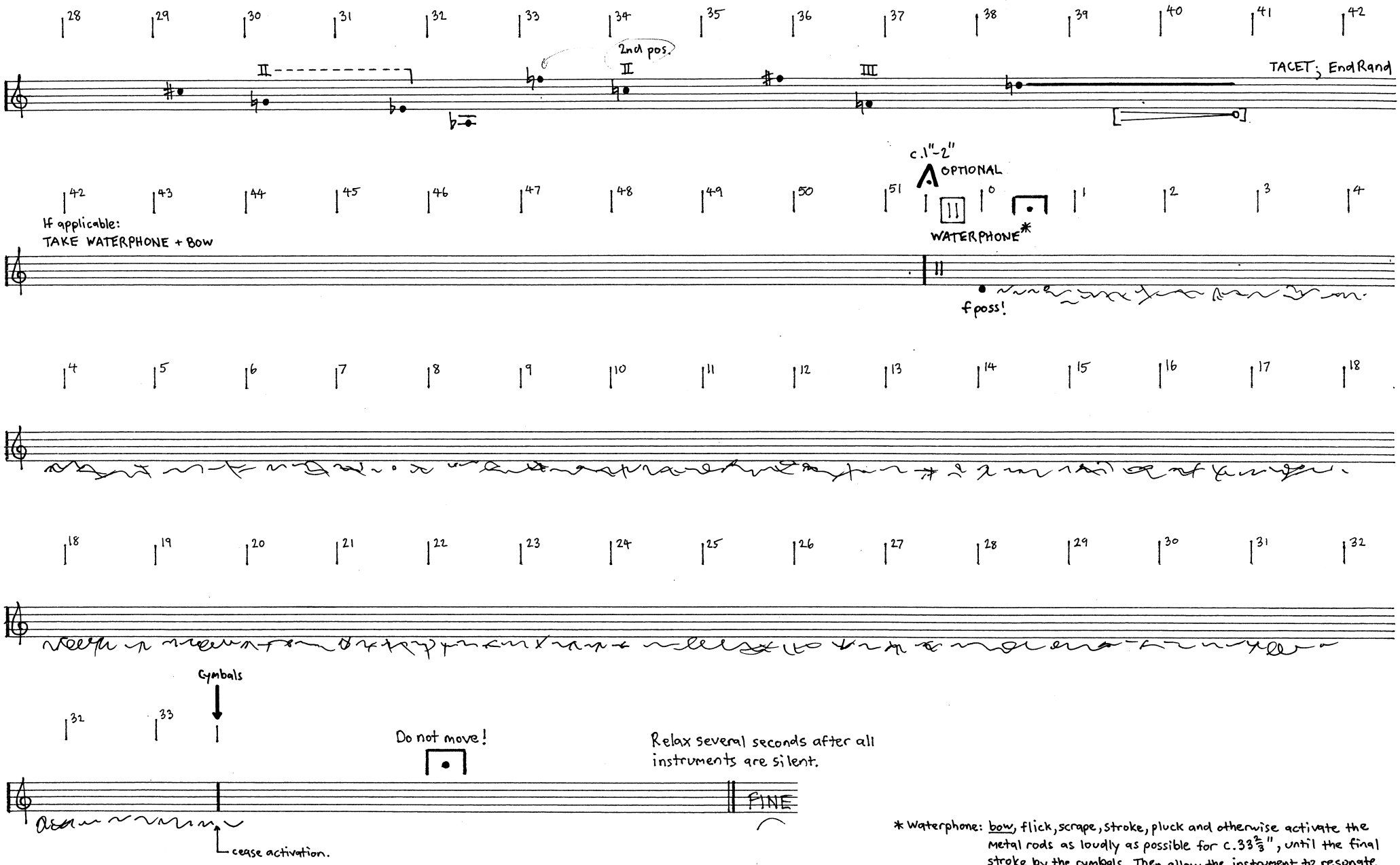

3
2nd pos.
II
[non vibr.]
[non vibr.]
I
I III [non vibr.]
c.1"-2"
OPTIONAL
4
2nd pos.
III
[non vibr.]
III
II
[non vibr.]
I
II
[f, non dim.]
TACET until 5

② Alto Rebec


c.1"-2"
OPTIONAL
5
6
7
8
2nd pos.
[blend with the Viola da Gambas.]
[mp, non dim.]
[f, non dim.]
TACET until 8


2nd pos.
2nd pos.
c.1"-2"
OPTIONAL
2nd pos.
TACET until 10
Infinitely calm and static. Rand Only {(molto)s.p.↔(molto)s.t.; V↔⊓; ppp↔mf}. Blend with the Viola da Gambas as much as possible!
funereal.

Ⓐ Alto Rebec



⑤ Alto Rebec/Waterphone

* Waterphone: bow, flick, scrape, stroke, pluck and otherwise activate the metal rods as loudly as possible for c.33⅔", until the final stroke by the cymbals. Then allow the instrument to resonate freely. Include several brief periods of inactivity (each no more than about 2" in duration).

BASS VIOLA DA GAMBA 1

[p]s(t)ellor/mneme – Ian Shanahan (1997)

Inexorable (like an orrery), hieratic, luminous: beautiful and cosmic, yet with a distant strangeness.

Rand{add notes...; (molto)s.p. ↔ (molto)s.t.; vibrato (<20%); V ↔ ⊓; ppp ↔ mf (occasionally f)}

= one second exactly.

1 * mellifluous; subtle – with great purity, delicacy and gentleness throughout...

[f poss., non dim.]

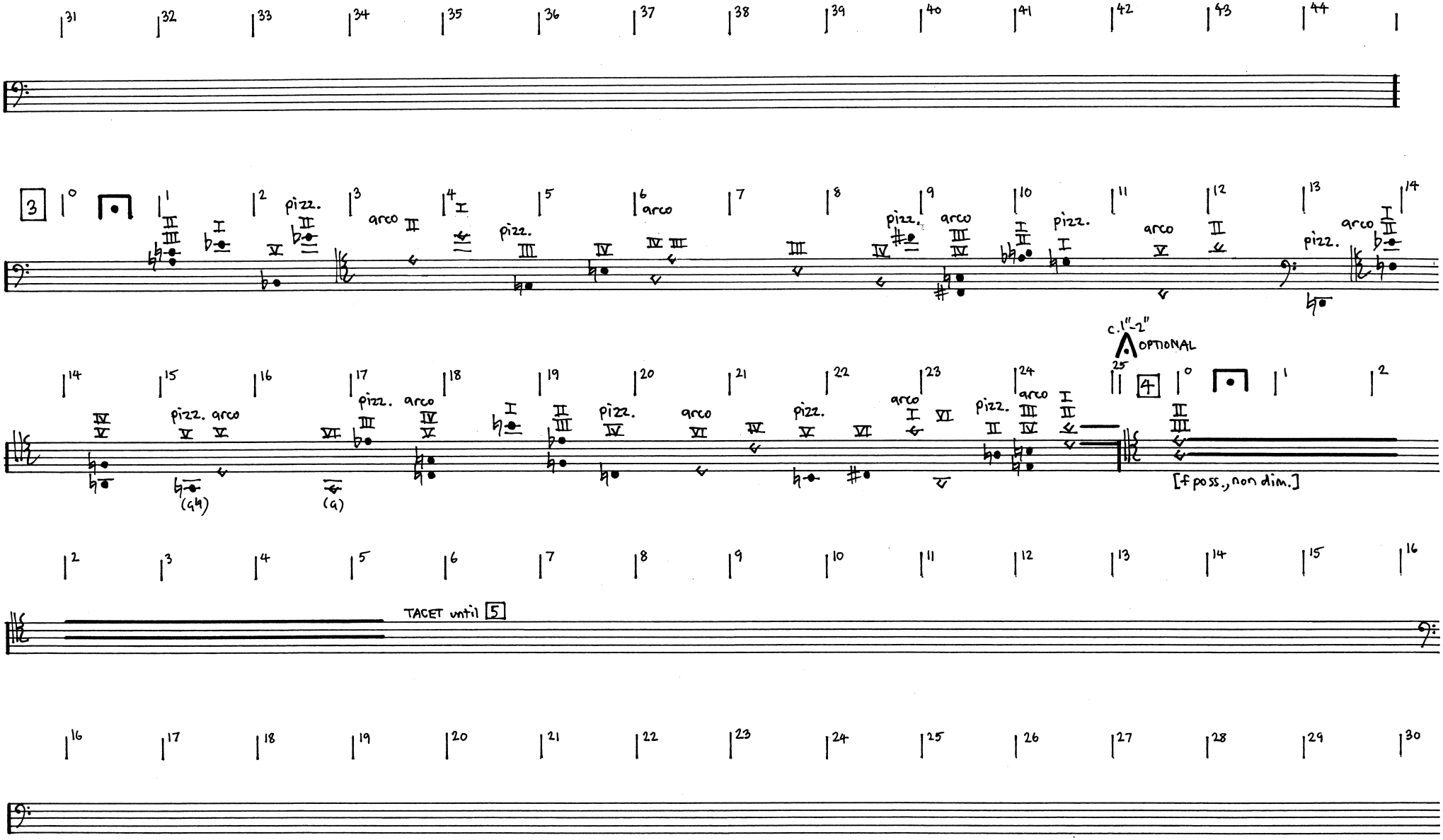
* mechanical and aloof, almost like a wind-up toy! Accentuate strongly the attack of each note in 1, then decrease the dynamic level immediately as the note is sustained (e.g. sffz:p).

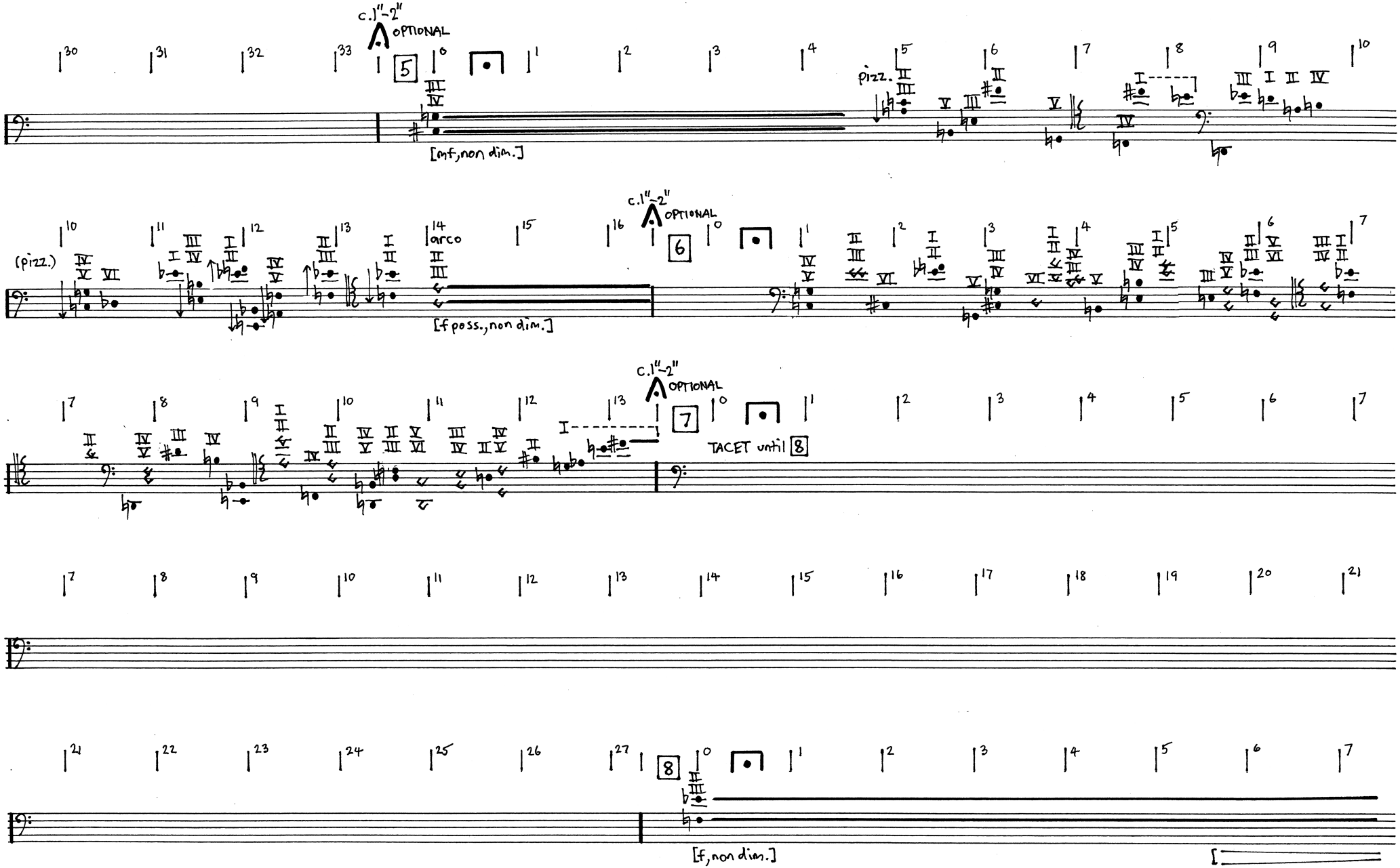
c.) "–2" OPTIONAL

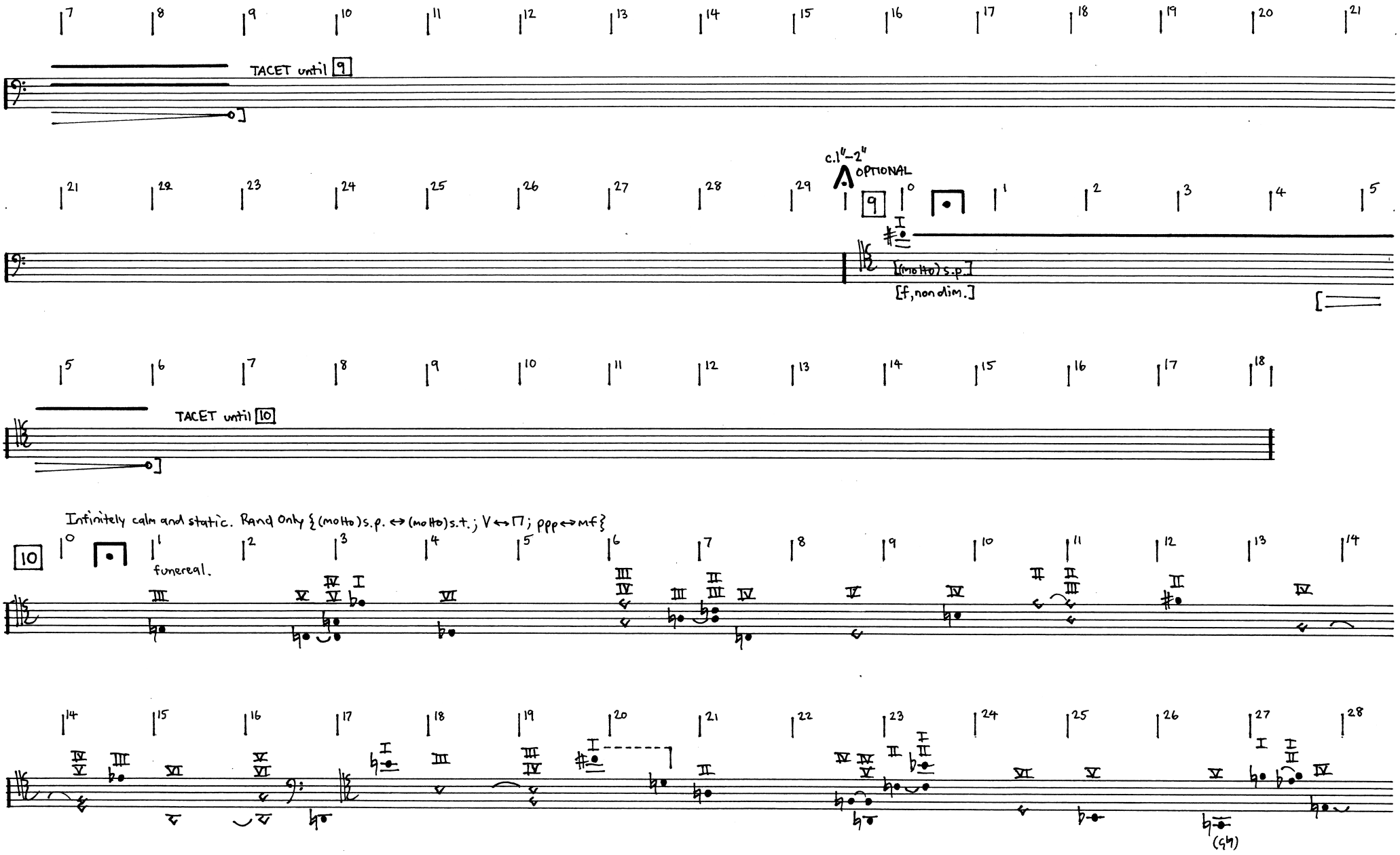
2

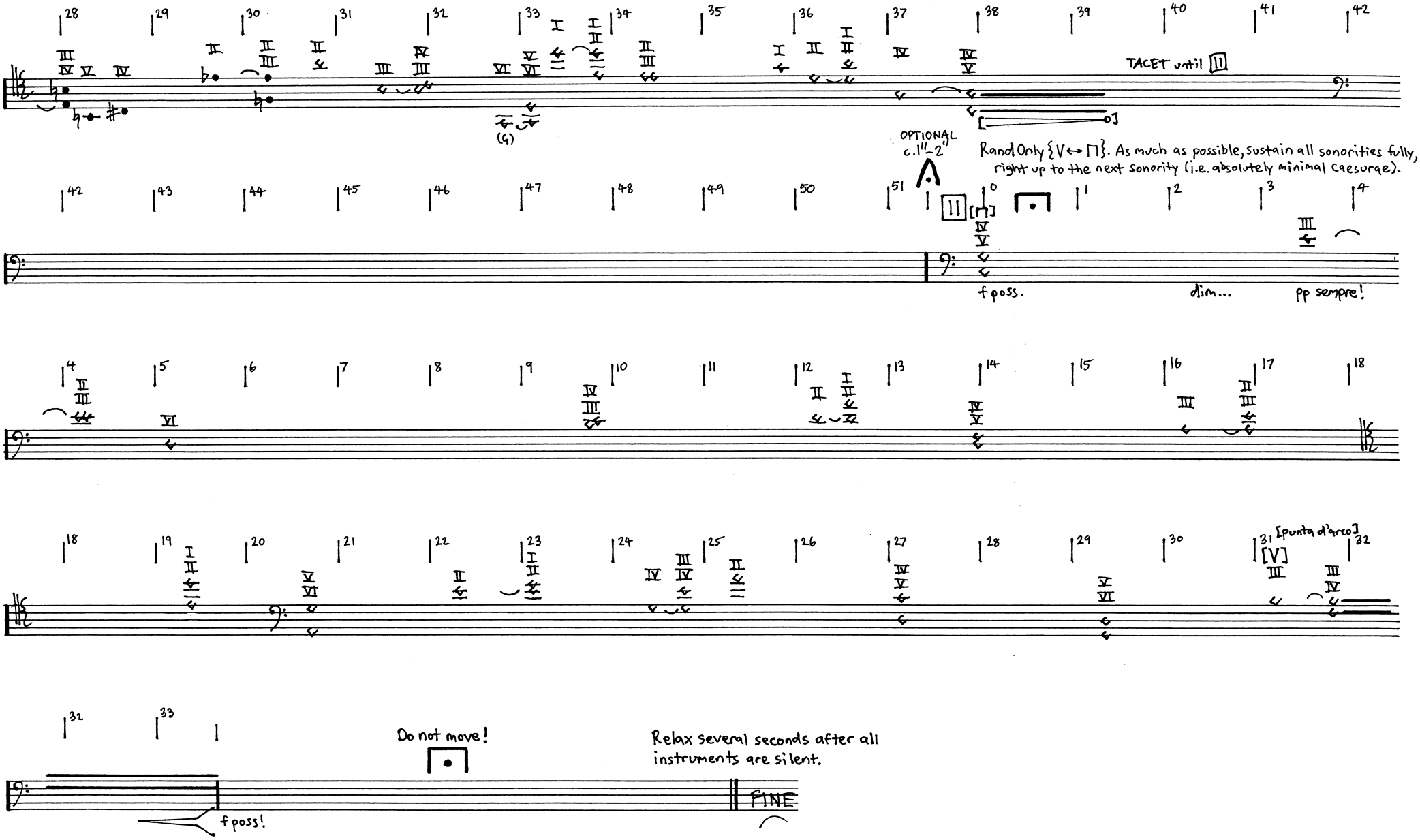
TACET until 3

SCORDATURA:


3
pizz.
arco
pizz.
arco
pizz.
arco
pizz.
arco
pizz.
c.1"-2"
OPTIONAL
4
pizz. arco
(g♯)
pizz. arco
(g)
pizz.
arco
pizz.
arco
pizz.
arco
[f poss., non dim.]
TACET until 5


c.1"-2"
OPTIONAL
5
[mf, non dim.]
pizz.
(pizz.)
arco
[f poss., non dim.]
6
7
TACET until 8
8
[f, non dim.]


TACET until 9
c.1"–2"
OPTIONAL
[(molto) s.p.]
[f, non dim.]
TACET until 10
Infinitely calm and static. Rand Only {(molto) s.p. ↔ (molto) s.t.; V ↔ I7; ppp ↔ mf}
10
funereal.
(gg)


TACET until III
OPTIONAL
c.1"–2"
Rand Only {V↔I}. As much as possible, sustain all sonorities fully, right up to the next sonority (i.e. absolutely minimal caesurae).
fposs.
dim...
pp sempre!
[punta d'arco]
[V]
Do not move!
Relax several seconds after all instruments are silent.
fposs!
FINE

BASS VIOLA DA GAMBA 2

[p]s(t)ellor/mneme – Ian Shanahan (1997)

Inexorable (like an orrery), hieratic, luminous: beautiful and cosmic, yet with a distant strangeness.

Rand {add notes...; (molto) s.p. ↔ (molto) s.t.; vibrato (<20%); V ↔ ⊓; ppp ↔ mf (occasionally f)}

= one second exactly.

1 mellifluous; subtle – with great purity, delicacy and gentleness throughout...

I [s.p.]

[f, non dim.]

(9)

(9⁹)

c.1"–2"

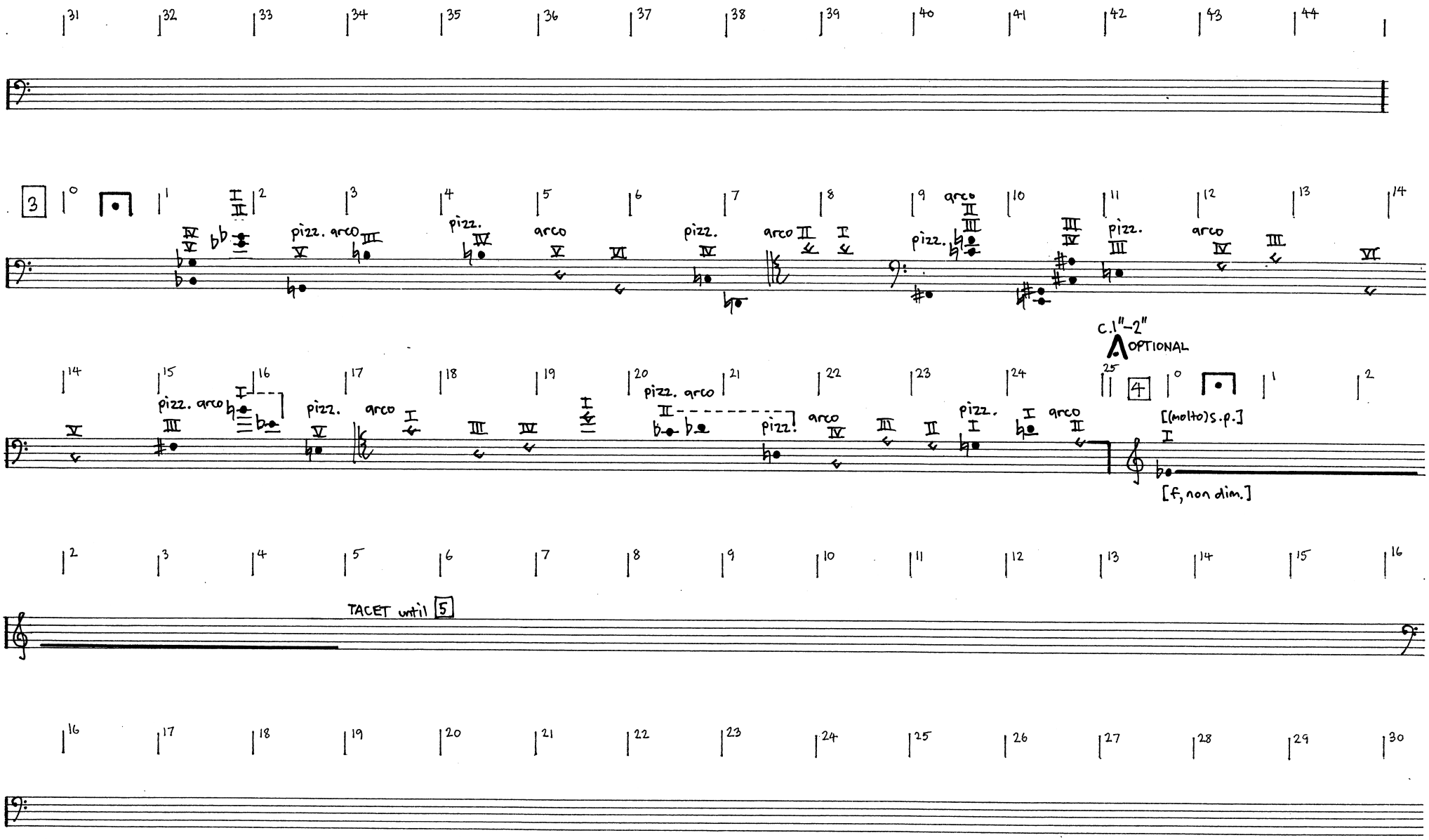
OPTIONAL

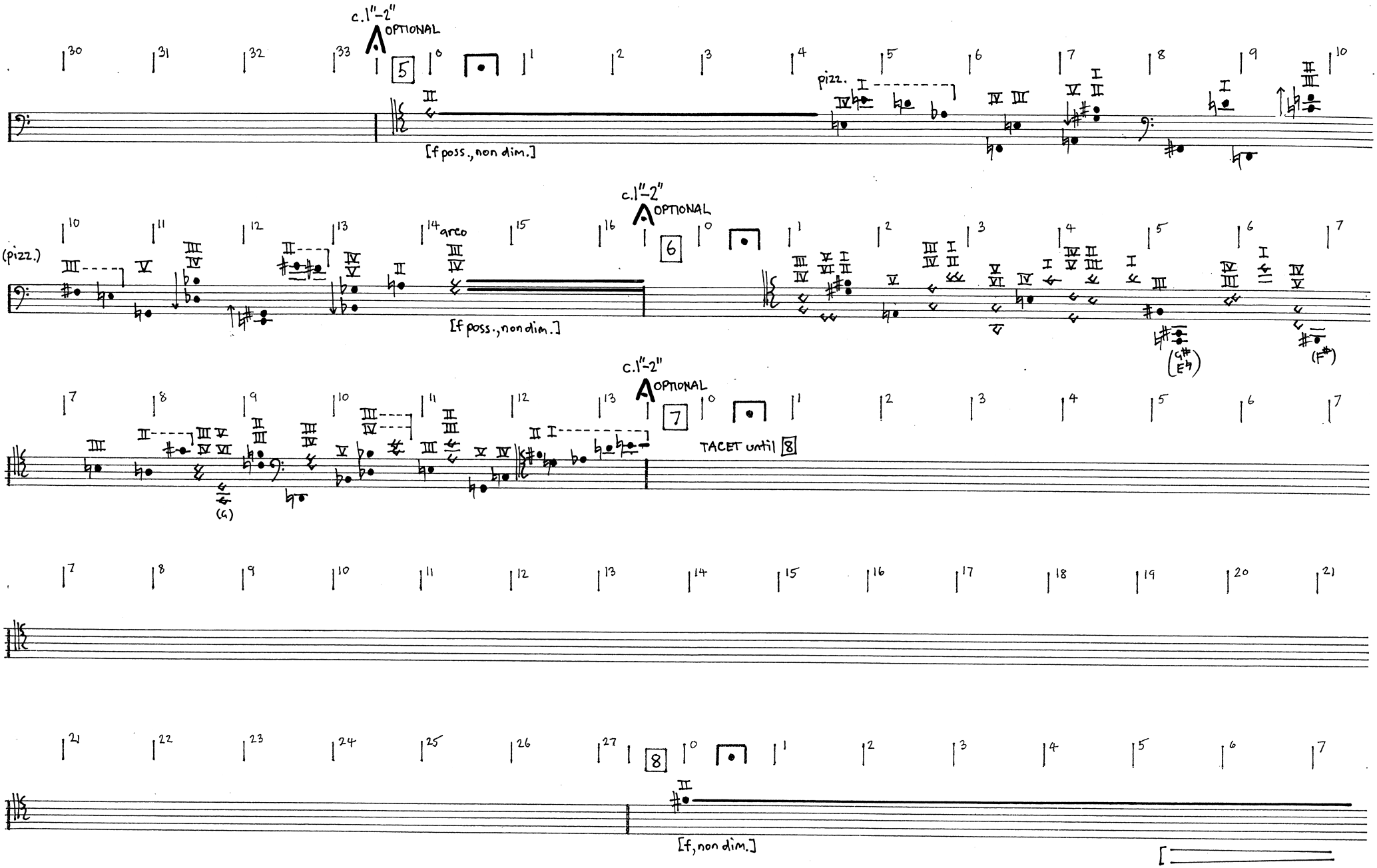
2

TACET until 3

*mechanical and aloof, almost like a wind-up toy! Accentuate strongly the attack of each note in II, then decrease immediately the dynamic level as the note is sustained (e.g. sffz:p).

SCORDATURA


3
pizz. arco
pizz.
arco
pizz.
arco
pizz.
arco
pizz.
C.1"-2"
OPTIONAL
4
pizz. arco
pizz.
arco
pizz. arco
pizz.
arco
[(molto)s.p.]
[f, non dim.]
TACET until 5


c.1"-2"
OPTIONAL
5
[f poss., non dim.]
pizz.
c.1"-2"
OPTIONAL
6
(pizz.)
arco
[f poss., non dim.]
(G#
E♭)
(F#)
c.1"-2"
OPTIONAL
7
TACET until 8
(G)
8
[f, non dim.]

TACET until 9

c.1"-2"
OPTIONAL

[fposs., non dim.]

TACET until 10

Infinitely calm and static. Rand Only {(molto) s.p. ↔ (molto) s.t.; V ↔ ⊓; ppp ↔ mf}

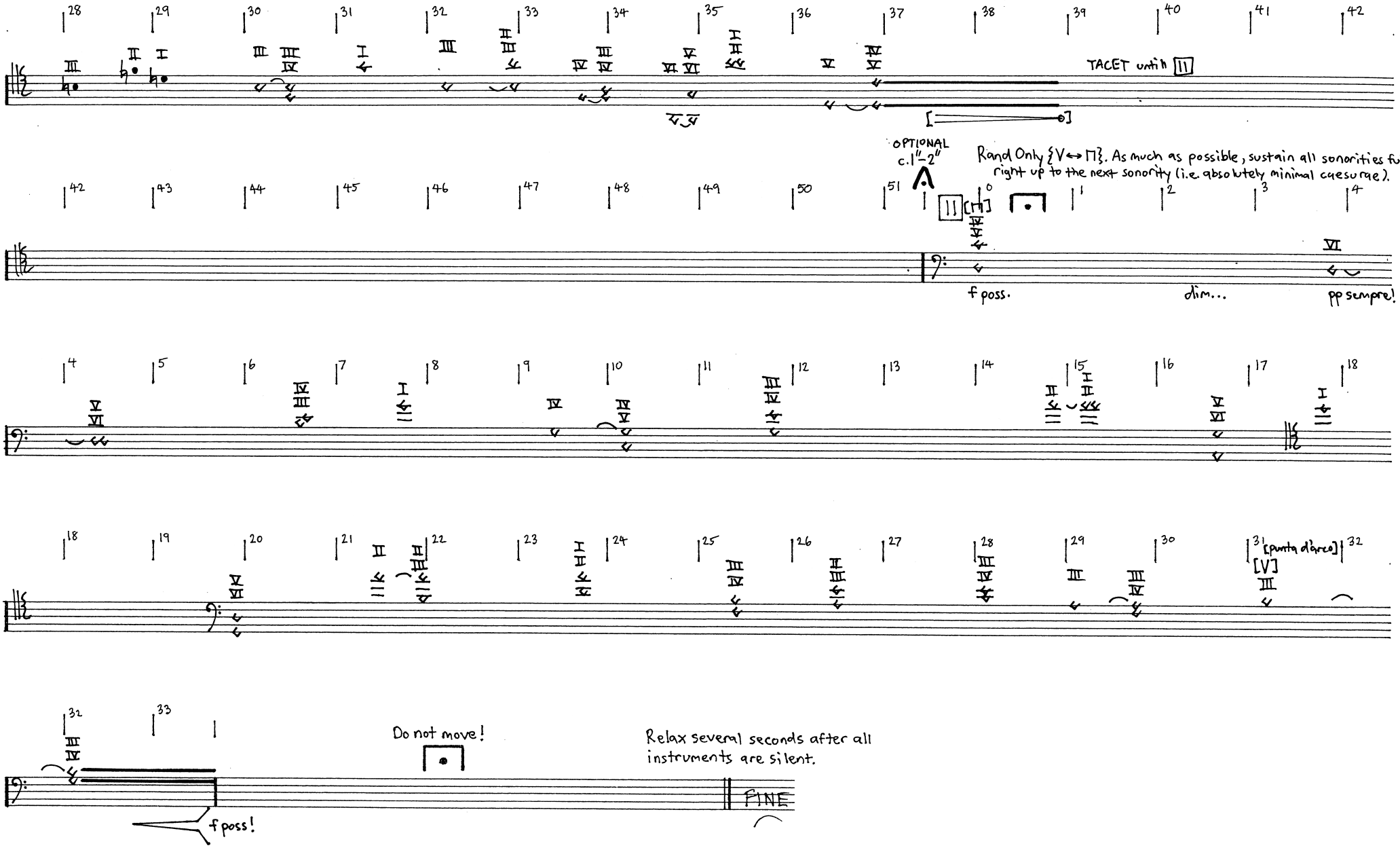
funereal.

(F#)

(G) (E♮ G# E)

(G♮)

④ Bass Viola da Gamba 2



⑤ Bass Viola da Gamba 2

BASS VIOLA DA GAMBA 3

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Rand {add notes...; (molto) s.p. ↔ (molto) s.t.; vibrato (<20%); V ↔ Π; ppp ↔ mf (occasionally f)}

= one second exactly.

1 * mellifluous; subtle – with great purity, delicacy and gentleness throughout...

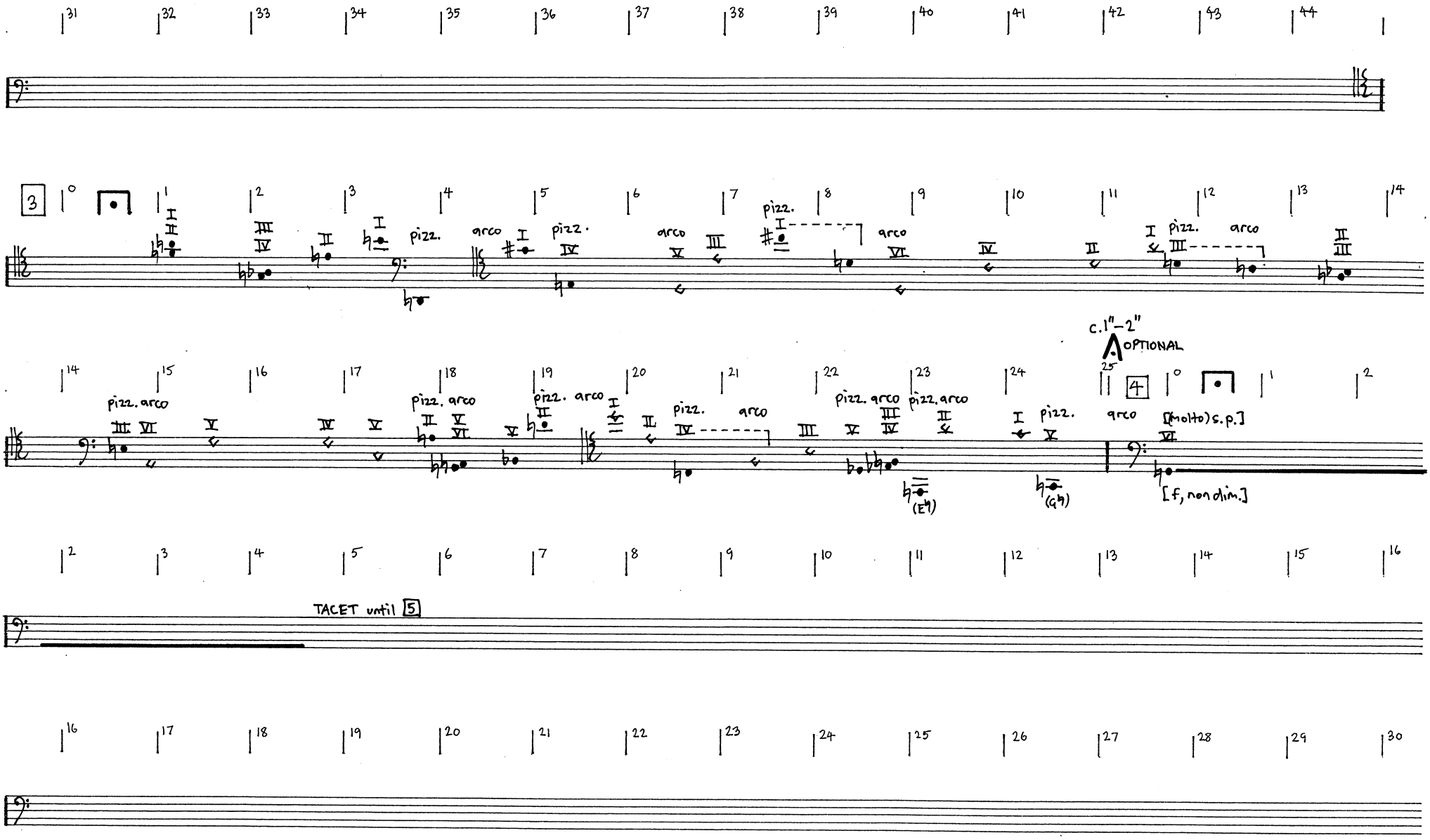
[f poss., non dim.]

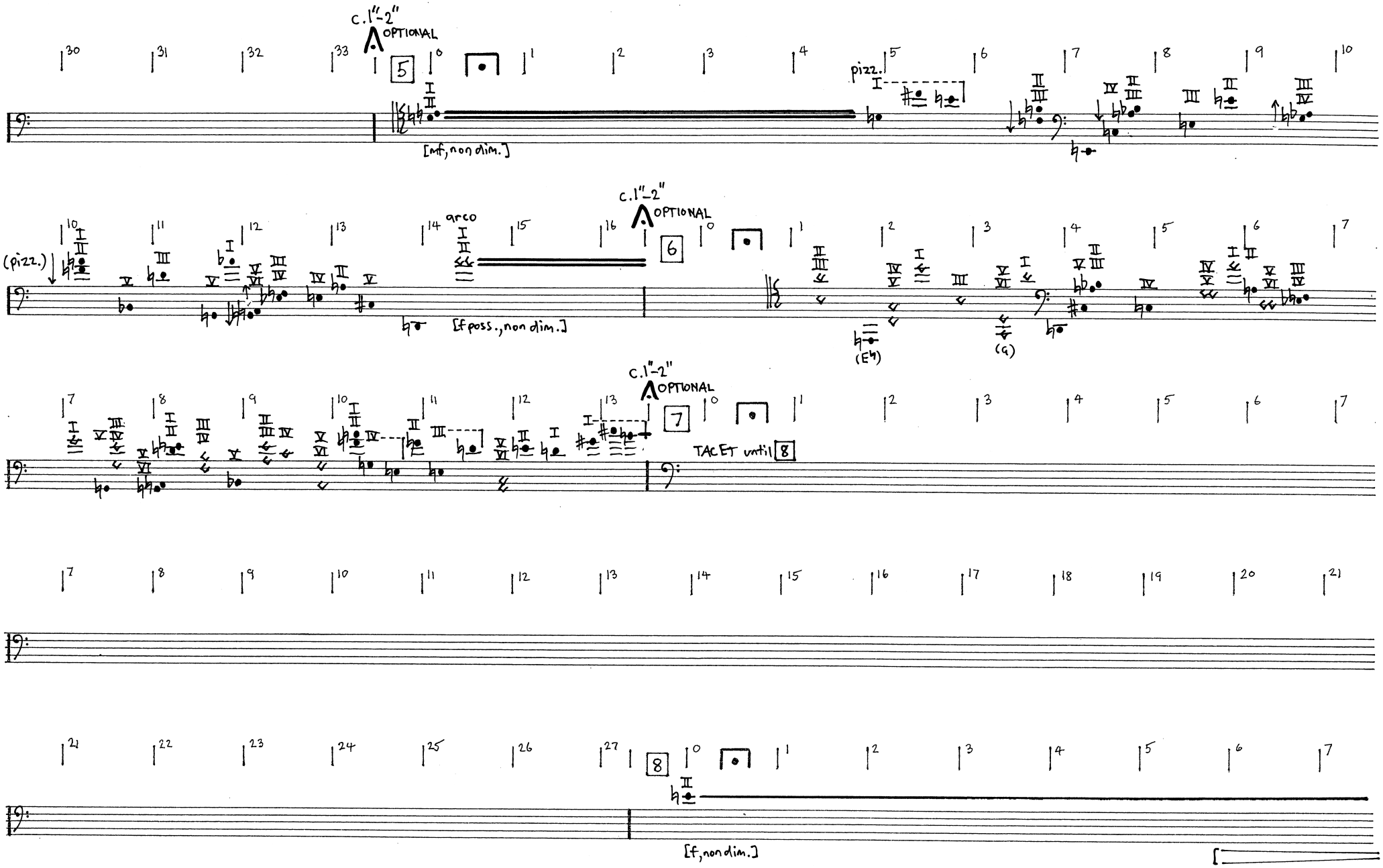
* mechanical and aloof, almost like a wind-up toy! Accentuate strongly the attack of each note in 1, then decrease the dynamic level immediately as the note is sustained (e.g. sffz : p).

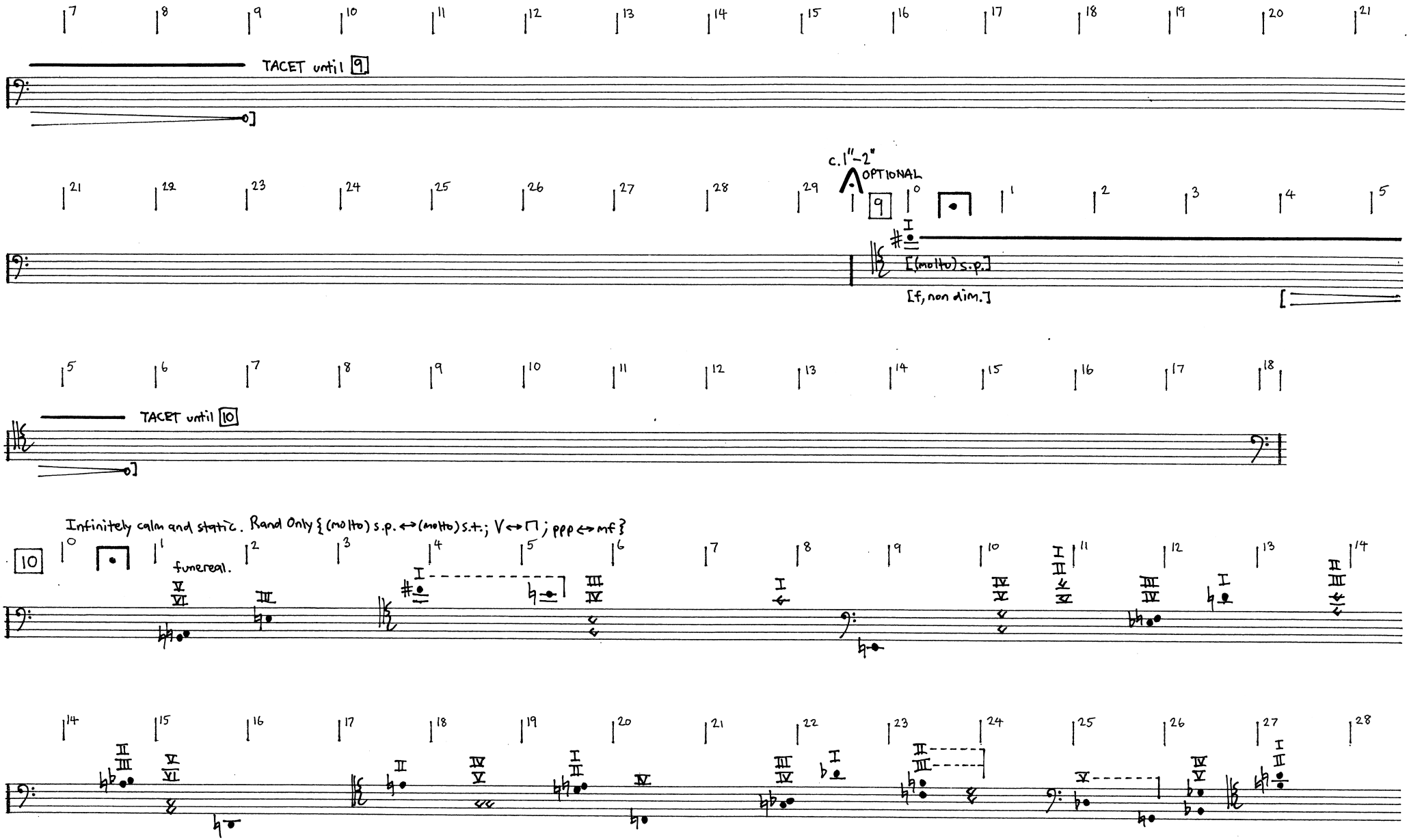
c. 1"–2" OPTIONAL

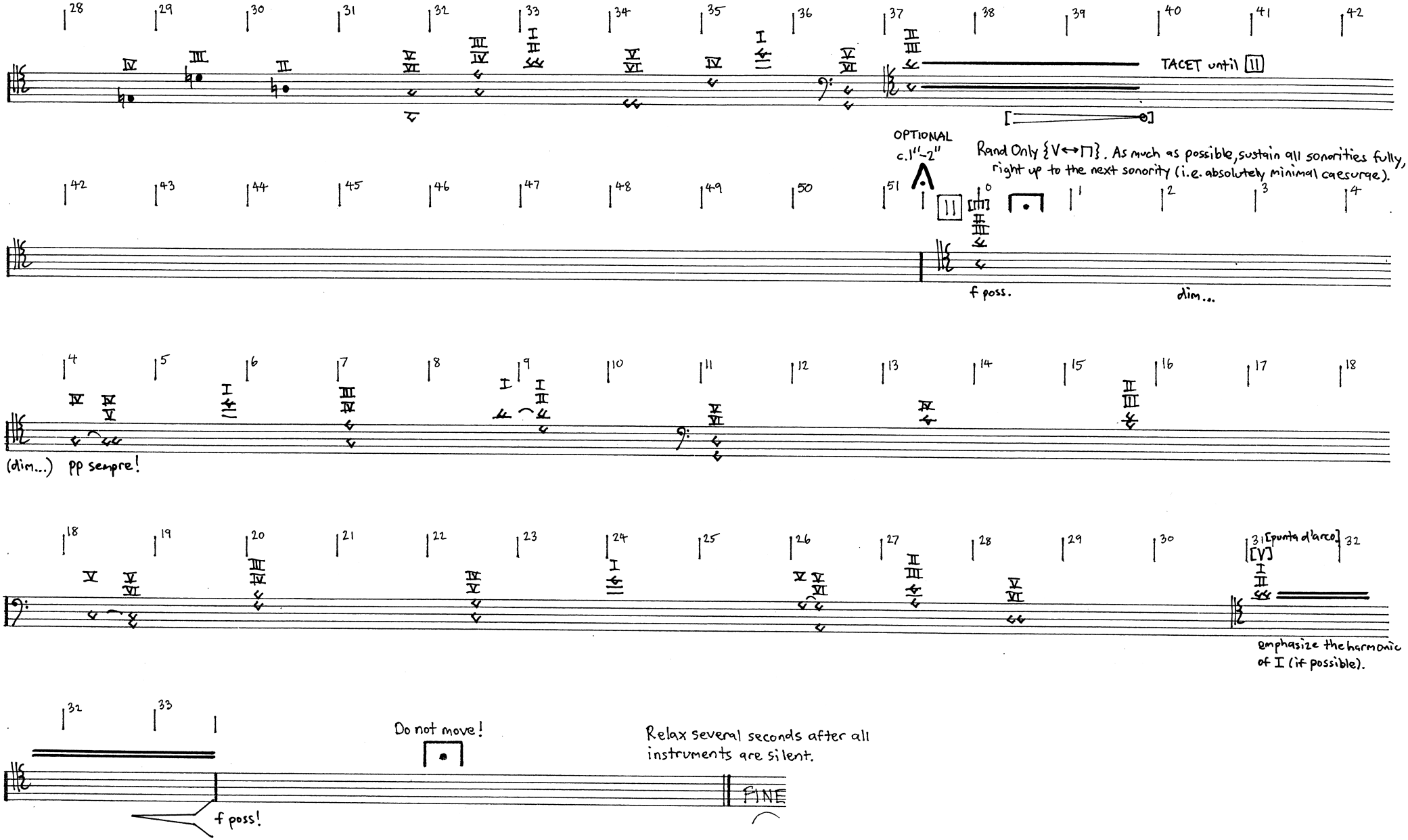
2 TACET until 3

SCORDATURA


3
pizz.
arco
pizz.
arco
pizz.
arco
pizz.
arco
pizz.
arco
pizz. arco
pizz. arco
pizz. arco
pizz. arco
pizz. arco
pizz. arco
pizz. arco
pizz. arco
pizz.
arco
c.1"–2"
OPTIONAL
4
[molto) s.p.]
(Eb)
(Gb)
[f, non dim.]
TACET until 5


c.1"-2"
OPTIONAL
[mf, non dim.]
pizz.
(pizz.)
arco
[fposs., non dim.]
(Eb)
(G)
TACET until 8
[f, non dim.]


TACET until 9
c.1"-2"
OPTIONAL
9
[(molto) s.p.]
[f, non dim.]
TACET until 10
Infinitely calm and static. Rand Only {(molto) s.p. ↔ (molto) s.t.; V ↔ ⌐; ppp ↔ mf}
10
funereal.


TACET until II
OPTIONAL
c.1"-2"
Rand Only {V↔I}. As much as possible, sustain all sonorities fully, right up to the next sonority (i.e. absolutely minimal caesurae).
f poss.
dim...
(dim...) pp sempre!
[Punta d'arco]
emphasize the harmonic of I (if possible).
Do not move!
Relax several seconds after all instruments are silent.
FINE
f poss!